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Greece: turning a crisis into a drachma

Can Obama get a deal on trade?

How to make teenage drivers safer

Telling the truth about mental illness

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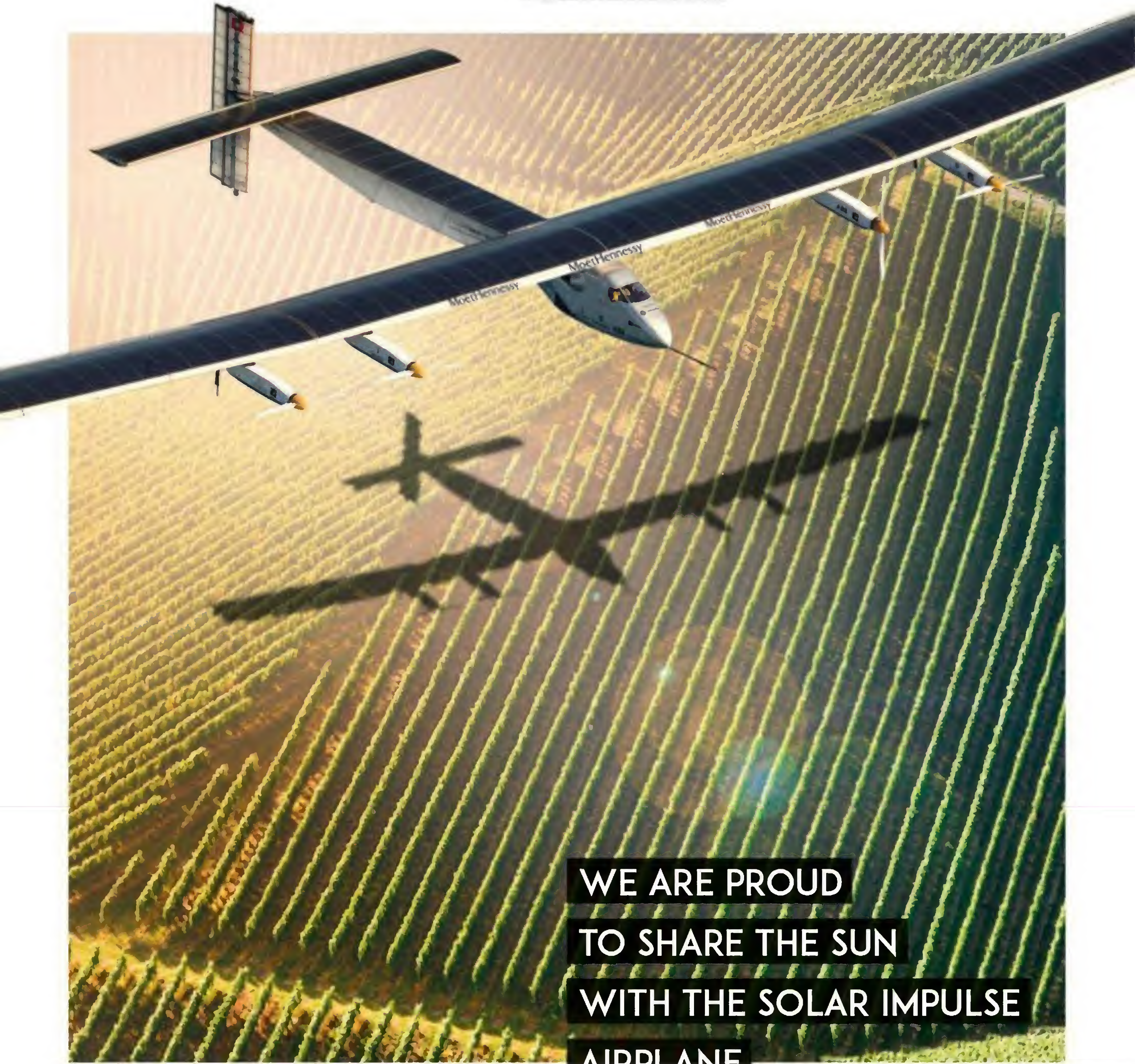
A moral and political disgrace



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The world this week

Politics

After yet another horrific capsizing in which hundreds of would-be **migrants drowned in the Mediterranean**, European Union leaders vowed belatedly to take action. Italy declared war on the people-smugglers. And an emergency EU summit met to discuss a ten-point plan to respond to the boat crisis. More than 1,750 migrants have now died trying to make the crossing to Europe from north Africa since the start of the year, 30 times more than during the same period of 2014, according to the International Organisation for Migration.

Fresh jitters about the potential for a **Greek** exit from the euro zone caused a sharp sell-off in Greek markets, and pushed yields on two-year government bonds to new highs. Talks on resolving a stand-off between the left-wing government and Greece's creditors got nowhere. Without extra funding the country could default on its repayments as soon as next month.

Finland's liberal prime minister, Alex Stubb, lost a general election to the centre-right party led by Juha Sipila. The leader of the Eurosceptic Finns, Timo Soini, may become foreign minister in Mr Sipila's coalition government.

The European Union said it would send a "statement of objections" to **Gazprom**, Russia's mostly state-owned gas giant, arguing that it had been abusing its dominant market position in central and eastern Europe. The EU's charges against the company run to hundreds of pages. Russia's government, which already faces EU sanctions because of its Ukraine intervention, reacted frostily.

Poland is to buy American Patriot surface-to-air interceptor missiles. This follows Russia's move to position missiles in its exclave of Kaliningrad, which is sandwiched between Poland and Lithuania.

Progress, and regress

Sixteen new ministers were sworn into office in **Afghanistan.** Since elections last year there have been months of bickering over the cabinet's composition. Only one post now remains to be filled in the 25-member body—that of defence minister. In contrast with past cabinets, which were dominated by former fighters, the new one includes many members who are young and well educated. Meanwhile, a group claiming to be linked to Islamic State said it was responsible for a bomb in Jalalabad, in eastern Afghanistan, that killed 34 people.

South Korea's prime minister, Lee Wan-koo, offered to resign after an allegation that he accepted illegal donations. Mr Lee has denied the accusation, which was made by a businessman in a note he wrote before committing suicide earlier this month.

During a visit to **Pakistan, China's** President Xi Jinping signed investment agreements worth $46 billion. Much of this will be spent on infrastructure links between the two countries. China hopes such projects will boost its influence in the region. Its ties with Pakistan are already very close. But China is also seeking better relations with India. The Indian prime minister, Narendra Modi, will visit Beijing next month.

Chinese scientists attempted to carry out germ-line gene therapy on human embryos. This would, in effect, create **genetically modified people** by causing artificially altered DNA to pass from parent to offspring, curing inherited diseases. They used a technique called CRISPR/Cas9 to try to edit the gene responsible for beta-thalassaemia in 86 non-viable embryos collected from local fertility clinics. The attempt failed, but other groups in China are rumoured to be working on similar projects, worrying bioethicists.

Voting intentions

Two opponents of **Cuba's** government stood as candidates for local councils in Havana. Hildebrando Chaviano, a lawyer, and Yuniel López, who belongs to an unauthorised political party, are the first dissidents to appear on a Cuban ballot in recent times. Unsurprisingly, both lost. Andrew Cuomo of New York paid the first visit to Cuba by a US governor since a thaw in relations began in December. The pope said he would visit in September.

A grim toll

Islamic State released a video purportedly showing the execution of 30 Ethiopian and Eritrean Christians at two locations in Libya. One group of captives was beheaded and the other was shot.

Saudi Arabia said it had halted air strikes on Houthi militants in **Yemen**, claiming to have achieved its objectives. Yet less than a day later air strikes continued on Houthi positions. Meanwhile, America moved naval forces onto the Yemeni coast amid reports that it was monitoring Iranian vessels that could be trafficking weapons to the Houthis.

Muhammad Morsi, an Islamist who was ousted as **Egypt's** president by the army in 2013, was sentenced to 20 years in prison for ordering the torture of protesters. He was acquitted of murder.

South Africa deployed soldiers into townships near Johannesburg and other hotspots to clamp down on xenophobic violence. The trouble has claimed several lives and forced thousands of immigrants, mainly from other African countries, to seek refuge in makeshift camps or to leave the country.

It's been a long time coming

Five months after Loretta Lynch was nominated by Barack Obama to be his new **attorney-general,** Senate Republicans agreed to allow a confirmation vote to proceed after resolving differences with Democrats on a bill to aid victims of human trafficking. The Republican leadership had refused to consider Ms Lynch's confirmation while contentious details of the bill were being thrashed out.

Michele Leonhart said she would step down as the head of America's **Drug Enforcement Administration,** a month after allegations surfaced that DEA agents had taken part in sex parties with prostitutes paid for by drug cartels, probably in Colombia.

A court in New York state issued a writ of habeas corpus in a case brought by animal-rights activists trying to free two **chimpanzees** from a laboratory. When the activists claimed this meant that the chimps have legal rights, the judge struck the habeas corpus term from her order. It is unclear whether the chimps will get their day in court to challenge their detention, or if they plan a great ape escape.

Business

Tesco reported a worse-than-expected pre-tax loss of £6.4 billion ($9.6 billion) for the year to February 28th, one of the biggest losses in British corporate history. The world's third-biggest supermarket retailer, which is being squeezed by discount rivals such as Aldi, booked several charges and took a hefty write-down in the value of its stores. Dave Lewis, the chief executive, said it had been "a very difficult year", an understatement given the catalogue of profit warnings.

They don't stack up

Meanwhile, *Which?* lodged a complaint with Britain's competition authority against what it described as **supermarkets'** "misleading" pricing practices from "dodgy multi-buys to baffling sales offers". The consumer lobby said that convoluted pricing has left customers bewildered.

Petrobras, Brazil's state-controlled oil giant, released its much-delayed quarterly results, its first audited accounts since a corruption scandal involving former executives shook the government of President Dilma Rousseff. The company wrote off 6.2 billion reais ($2.1 billion) because of the alleged graft and a further 44.6 billion reais for overvalued assets, mainly on a petrochemical plant and a refinery.

Executives from **Comcast** met regulators at the Justice Department and Federal Communications Commission to argue the case for their proposed $45 billion takeover of **Time Warner Cable**. Comcast did not comment about the talks, but the FCC might hold an administrative hearing on the deal, which would be a sign that it is not warming to the idea.

In an attempt to increase lending to business, the People's Bank of China lowered the level of cash that banks must set aside as reserves, reducing the reserve-requirement ratio by one percentage point, the biggest cut since the global financial crisis in 2008. This came after data showed that **China's economy** grew in the first quarter at its weakest pace since early 2009 and that industrial production had slowed considerably in March.

The **Nikkei 225** stockmarket index closed above 20,000 for the first time in 15 years. Japanese shares have been boosted in part by a government-backed drive for companies to return more of their 231 trillion yen ($1.9 trillion) cash pile to shareholders. Markets were also buoyed by Japan's first monthly **trade surplus** in three years.

Wonga, Britain's biggest payday lender, reported an annual loss, following a crackdown on the industry that led to a 36% drop in its lending volumes.

The Hounslow connection

A 36-year-old day trader operating out of a suburban house in London that sits under Heathrow's flight path was charged by American authorities with involvement in the **"flash crash"** on May 6th 2010 that saw stockmarkets dive by 10% within just a few minutes. Navinder Singh Sarao appeared in court to fight his extradition to America, where he is accused, among other things, of "spoofing" the futures market by placing phoney orders.

The febrile dealmaking in the drug industry continued as **Teva**, based in Israel and the world's biggest maker of generic drugs, launched an unsolicited $40 billion takeover of **Mylan**, an American rival. Mylan had itself recently offered $29 billion for Perrigo, which has its headquarters in Ireland (that deal has been scotched). If it succeeds, Teva's acquisition would be the biggest foreign takeover yet made by an Israeli firm.

After years of declining profit margins **Volvo** dismissed Olof Persson as chief executive. The Swedish lorry-maker named Martin Lundstedt as its new boss, who currently heads **Scania**, a rival that is owned by **Volkswagen**. The German carmaker has had its own management problems of late, with its supervisory board issuing support for Martin Winterkorn as chief executive despite his spat with Ferdinand Piëch, the chairman.

Google launched a wireless service that charges $20 a month for phone and text services and $10 per gigabyte of data, but which refunds customers if they don't use all their data allowance. It also overhauled its mobile-search algorithm to prefer sites that are mobile-friendly. The consequences for the search rankings of some organisations have caused the change to be dubbed "mobilegeddon".

Business contortions

Cirque du Soleil was bought by a consortium that includes Fosun, a Chinese conglomerate that hopes to develop the acrobatic troupe's shows in China, where they have not gone down so well with audiences used to large-scale circuses. Fosun has been boosting its entertainment portfolio to tap into leisure spending by China's middle classes, buying Club Med this year and investing in Thomas Cook.

Other economic data and news can be found on pages 84-85

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Europe's boat people

The EU's policy on maritime refugees has gone disastrously wrong

THE European Union likes to boast that it is a force for good. But in the past ten days as many as 1,200 boat people have drowned in the waters of the Mediterranean. An unknown number were refugees from Syria, Eritrea and Somalia fleeing war or persecution. They perished in part because the EU's policy on asylum is a moral and political failure.

In a hastily arranged summit, under way as *The Economist* went to press, EU leaders set out to do something about the drownings. Before them was a ten-point plan designed to enhance rescues, suppress people-smuggling and spread the burden of taking in refugees. Yet, even if Europe's leaders embraced the plan in full, it would still fall short.

Officials say 1m migrants are camped on the southern shore of the Mediterranean, waiting to embark on a life that is incomparably better than the one they are leaving behind. The Arab world is engulfed in fighting that is likely to last decades and which has set whole nations adrift. Chunks of Africa are prey to sectarian and ethnic strife and to environmental depredation. An enclave of stability and wealth in an ocean of violence, Europe has not begun to grapple with the choices ahead.

Nightmare nostrum

A refugee crisis is hard to cope with because its very existence is a symptom of warfare, persecution or misrule (see pages 21-24). You cannot stop the tide of refugees because, this side of Utopia, you cannot impose peace upon Libya and Syria or wish good government on Eritrea and Somalia. You cannot let everyone in, because refugees mingle with people in search of prosperity—and states want to choose their economic migrants, not be chosen by them. On the other hand you cannot keep everyone out, because, after the crimes of the second world war, countries made solemn undertakings never again to abandon innocent people to persecution and conflict.

Yet, as well as reflecting a deep malaise in the lands they are fleeing, the plight of Europe's boat people also exposes the failings of countries with a duty to shelter them. In Europe that starts with a breakdown of ethics. The EU is putting only a third as much money and less than a tenth of the manpower into maritime rescue as it did last year. Several countries, including Britain, argued that a high chance of being rescued acts as a "pull" factor which only encourages more migrants. In effect, the EU was proposing to stand back and watch one lot of innocent people drown so as to deter another from following them into boats. That logic was wrong as well as morally repugnant. Even before the recent disaster, the death rate this year, compared with the start of 2014, was ten times greater—and still people have been coming in the same numbers.

European solidarity has yet again been shown to be flimsy. Although UN conventions say refugees are the responsibility of the country where they turn up, allies have sometimes shared the burden. When boat people left Vietnam, a co-ordinated plan eventually resettled over 1m of them across the rich world. But co-operation in Europe has been in short supply. Although leaders negotiate asylum policy at the EU level, they jealously guard their national powers. That way, mindful of public opinion and the threat from anti-immigration parties, they can both cynically deflect responsibility towards Brussels and also avoid having to accept many flesh-and-blood refugees. Last year 626,000 people applied for asylum to the EU (only a fraction of them came by boat); roughly half of the applicants who were processed were successful. France granted asylum to 15,000; Britain to only 11,000. Despite honourable exceptions, including Germany, with 41,000, and Sweden, with 31,000, most countries wish the problem would go away.

The cruel seafarers

Europe's policies are also rife with unintended consequences. A new fence between Greece and Turkey stopped migration across the land border, but led to a doubling in—more dangerous—crossings of the Aegean in the first half of 2014. Relying on merchant vessels to answer migrants' calls for help causes them to switch off their radios, increasing the risk of collisions and the dangers for shipping in distress. Countries shut asylum-seekers inside detention centres for long stretches or prevent them from working in order to make life so miserable that people will seek refuge elsewhere. That wastes money, besides making newcomers harder to integrate.

If the EU is to live up to its values, it must act on many fronts at once, from saving lives at sea to helping countries with the greatest burden. EU leaders are right to boost the rescue mission—but it needs to be much bigger, larger even than the one in operation last year. The EU is also right to take on the people-smugglers. But they will be resilient, as the profits are irresistible and the supply of crew members almost inexhaustible.

Maritime migration is thus a problem to be dealt with on land. UN treaties mean that refugees must travel to the EU to claim asylum there—which is why so many head for the Italian island of Lampedusa, 70 miles (113km) from the Tunisian coast. The best way to stop the boats is for camps to process asylum applications to Europe on the south shore of the Med. If camps are seen to work, refugees will prefer them to the risk of drowning. Setting them up will not be easy. The EU will have to pay north African countries to host them. Asylum-processing must be fast, fair and efficient. The economic migrants who are rejected need to be sent back home. And member states must sign up to their share of refugees—which should be well within the scope of 500m wealthy EU citizens.

Europe cannot put an end to the violence and desperation that leads people to flee, but in the longer run it should do more for its neighbours. Engagement makes sense in itself and may eventually help stem the flow of refugees. If the EU works for a settlement in Libya, the criminal networks may become less entrenched. If it accepts north African produce, it may face fewer north African people. If more of the EU offers help to the 1m refugees in Lebanon, fewer will turn up on the streets of Paris and Berlin. Europe likes to think it is a model for how nation states can work together to make the world a better place. At the moment, the boat people put that idea to shame. ■

The United States, Japan and trade

Don't treat trade as a weapon

An Asian-Pacific trade deal looks within reach, but politicians should stop seeing it as a way to contain China

GOOD news out of Washington is rare. Last week congressional leaders agreed on a bipartisan bill which, if passed, would for the first time in years give the president "fast-track" authority when negotiating trade deals. The bill would be a boost for the prospects of a huge trade deal, the Trans-Pacific Partnership (TPP), binding America with 11 economies (including Japan but not China) around the Pacific rim. Now, as if on cue, come welcome signals about the TPP itself. As Japan's prime minister, Shinzo Abe, prepared to head to Washington for a much-anticipated trip including an invitation to address a joint session of Congress (see page 37), he claimed that America and Japan were close to agreement over their bilateral terms—on which the whole TPP deal hinges.

Yet there are two big caveats. First, fast track, formally known as Trade Promotion Authority, may still fall foul of Congress. Second, Japan may not make any serious cuts to tariffs that protect its farmers. Those outcomes are more likely because the Obama administration and the Japanese government have made a similar mistake: both have been too quick to cast the TPP as a weapon in the containment of China.

Flanked by Japan and America, the TPP would link countries which make up 40% of global GDP. It could boost world output by $220 billion a year by 2025. It is supposed to reform difficult areas such as intellectual property, state-owned firms and environmental and labour standards. It would join economies—from Vietnam to Australia—that lie at different ends of the spectrum of development.

But the TPP will not happen without fast track, which forces Congress into a yes/no vote on any pending trade deal and so avoids the risk that it will be amended into oblivion. And the passage of fast track faces a lot of scepticism from Democrats (see page 25). Some are implacably opposed. Others want America to have a bigger arsenal with which to fight against unfair traders. Driven by a conviction that China artificially holds its currency down and destroys American jobs, Charles Schumer, a powerful senator from New York, is determined that fast track should include a provision that would make sure a trade deal included sanctions on currency manipulation.

Attaching a currency-manipulation clause to trade deals is a poor idea, both because the practice is hard to define and because the addition of such clauses makes reaching an agreement less likely. But since the Obama administration has pitched TPP as a counterbalance to an assertive China, Mr Schumer's demands are harder to ignore.

Give trade a chance

The same mistaken logic looks set to cause problems in Japan. Mr Abe committed his country to joining the TPP on strategic grounds—as a counterweight to China—rather than because he is a born admirer of free trade. When he entered negotiations, some of his backers thought that, by playing the China card, Japan would be spared from making real concessions: that America would care more about a pact that excluded China than about prising open Japan's most protected markets, particularly rice. Even now, Japan seems to want to keep tariffs high. The best it may offer is to allow in a fixed quota of tariff-free rice from the TPP's other members, America included.

If the China-containment logic leads to a minimalist agreement, then the economic gains from TPP will be slim. TPP's real value is to set high new standards for world trade, and that demands the boldest possible agreement. And in the long run the world gains most if China joins. The rhetoric makes trade negotiations sound like a contest. In fact, it is a battle where the more you give away the more you win. ■

Scottish nationalism

Northern exposure

Poised to triumph in Britain's election, the Scottish nationalists spell trouble for the union

THE general election that will be held in Britain on May 7th is so finely balanced that predictions are foolhardy. Save one: the Scottish National Party (SNP) will triumph. And that spells grave danger for the United Kingdom, including—indeed, especially—for Scotland itself.

After failing to win last year's independence referendum, the SNP might have been expected to collapse. Astonishingly, it has roared back. Through relentless campaigning and exemplary use of social media, the SNP has made fervent supporters out of nationalist sympathisers, many of them working-class Scots who always voted Labour. As a result, it now has 100,000 members from among 5m Scots; the Conservative Party, which draws from all 64m Britons, has only about 150,000. Nicola Sturgeon, the SNP leader, has been the star of the campaign's televised debates. Polls suggest that the "Nats" may win as many as 50 of Scotland's 59 seats in the House of Commons, up from just six in 2010. If (as seems likely) no clear winner emerges, they could well hold the balance of power.

This is a big problem for the Labour Party, and not just because its MPs occupy most of the seats the SNP is poised to grab. The nationalists could also drag it leftward. Ms Sturgeon, who is more straightforwardly left-wing than her predecessor, ▸▸

Alex Salmond, will not prop up a Tory government, and indeed promises to do her utmost to bring one down. She would support a Labour administration. Part of the price, suggested in her party's manifesto, unveiled on April 20th, would be higher spending, particularly on welfare. Part would be the constant demand for favours to Scotland (see page 53).

Such informal dealmaking will threaten the legitimacy of government and the future of the union. When the Tories warn of the danger of a separatist party with a finger on the wheel of British government, they are trying to scare English voters away from Labour. But they are also right—and the appearance of nationalist influence could be as damaging as the reality. If Labour holds power with SNP support, every policy will be scrutinised for signs of Scottish favouritism. Labour wants a tax on homes worth more than £2m ($3m). Since there aren't many of those in Scotland, this will be seen as a raid on the English, with some of the proceeds going to the canny Scots—who already receive much more state cash per head than the English or the Welsh. Repeat that complaint a few times, and you have the makings of a constitutional crisis.

Paradoxically, a resurgent SNP chafing under another Conservative-led government could imperil the union even sooner. Today the Tories have just one seat north of the border. If David Cameron remains in Downing Street, leading an almost entirely English party, the SNP will noisily question his legitimacy. A Cameron government would also raise the spectre of a British exit from the EU after the "in-out" referendum the prime minister promises. Nationalists already insist that Scotland's views on this matter should be considered separately. If Britain does vote to leave, there will surely be another independence referendum, which the nationalists would win.

Just one good thing has come of the SNP's surge. Belatedly, unionist politicians are paying attention to Scottish politics. They have long ignored it, leaving their B teams in Edinburgh while their best operators take top jobs in Westminster. Yet the SNP's record in Scotland offers much to attack. The country's schools are mediocre; the hospitals are protected from competition—and all the worse for that. The Nats boast about free university tuition, yet fewer working-class teenagers go straight to university in Scotland than in England, where they pay.

Not as tough as they look

Most damning, Scotland cannot afford the SNP's plans. This newspaper argued three years ago that Scots would probably be poorer outside the United Kingdom, even with handsome earnings from North Sea oil and gas. Cheap oil has removed the uncertainty. The Scots would now unquestionably be much worse off: the Institute for Fiscal Studies, a think-tank, reckons that this year Scotland's deficit will be roughly double Britain's. Either independence or fiscal autonomy (the SNP's next-best option) would be utterly ruinous. The nationalists are rampant, yet their case is crumbling. Exposing their fallacies is the best way to limit their sway over the next government, whatever its complexion—and to save the union. ■

Greece

On the Gredge

A Greek exit from the euro may soon become inevitable

EVENTUALLY every long-running drama, from "Downton Abbey" to "Dr Who", feels formulaic. So it is with Greece's debt saga. For five years it has followed a wearily familiar script of unpayable debts, aborted reforms and 11th-hour compromises that let the country stagger on inside the single currency. That history has lulled many into expecting the usual denouement in the latest wrangling between Greece's Syriza government and its European creditors. But this is looking ever less likely. Unless Syriza suddenly capitulates—and a meeting of euro-zone finance ministers on April 24th is one of its last chances to do so—Greece will fail to pay its creditors. If that happens, its exit from the euro will be just a step away.

Greece has already restructured its debts once, in 2012. It now owes money mainly to other European governments, the European Central Bank (ECB) and the IMF. These official creditors have slashed interest rates and stretched out maturities, but not enough. With a debt stock of 175% of GDP, Greece will need more relief. Most European politicians quietly accept this. The danger lies in a chaotic default born of brinkmanship. The Greek government has bills to pay and no money to pay them. It is resorting to desperate measures. This week Alexis Tsipras, the prime minister, ordered local-government bodies to move spare cash to the central bank (see page 65). That might buy a few weeks. But in the end Greece will not be able to pay its pensioners, let alone its creditors, without a deal with its European paymasters that unlocks new loans.

That seems increasingly unlikely, for three reasons. The first is a deep loss of trust on the part of Greece's creditors. The euro zone has always had only a faint version of the solidarity that characterises a true union. But since Syriza came to power that has been ripped apart. The stunts and stumbles of Greece's inexperienced government are a factor. But the bigger problem has been Syriza's unwillingness, or inability, to name, let alone implement, the reforms that it will undertake in return for its next tranche of money. Once Greece's creditors might have taken general promises; now they want specifics.

Second, Europeans worry less today about the market consequences of Grexit. Thanks to the 2012 restructuring, the direct effects of another Greek default would be easier to handle because Europe's banks, the weak link in any panic, are now more insulated. As fears of financial contagion have dwindled, so has European creditors' appetite for compromise.

And third, political constraints on both sides make bargaining hard. Syriza was elected on a promise to halt the endless austerity required by its bail-outs. The government has its own factions to control, among them hard-left MPs unprepared to make concessions on privatisations or pensions. Mr Tsipras might need a referendum or another election to win a mandate to backtrack even if he wanted to. Voters in creditor countries are tired of paying for Greece; politicians in places like ▸▸

Spain that have also been through austerity are hawkish.

Repayments to euro-zone lenders are not due until the 2020s. But if you add all these elements together, it is hard to see how the Greeks can reach a deal that will let them honour their more immediate debts to the IMF and the ECB.

Outward bound

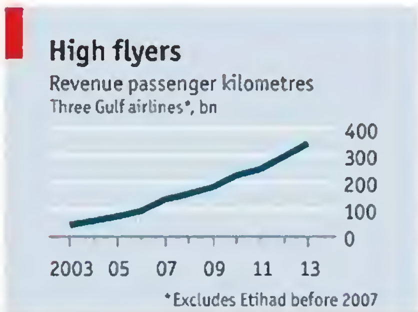
Less clear is whether such a default must lead to euro exit. The two need not go together: Greece defaulted on private-sector creditors in 2012. But stiffing private investors with the support of the euro zone is quite different from unilateral non-payment to official creditors. The decisions of the ECB, which keeps Greece's banks afloat, would be critical. The ECB does not want to be the actor that precipitates Grexit by withdrawing support; and ratings agencies have helpfully said that a missed payment to an official creditor would not constitute a default. But if the ECB itself were not being paid, that would be a hard line to hold. And non-payment would depress the value of Greek banks' holdings of short-term government debt and encourage deposit flight. That would leave the banks needing more liquidity support from the ECB just when doubts about their solvency crystallised. The ECB is unlikely to help then.

There are ways for Greece to defer disaster. It could save hard currency by issuing scrip, a type of IOU, in lieu of payments to its citizens (see Free exchange, page 70). But that would be an open invitation to Greeks to take their remaining euros out of the banks. So the government could impose capital controls. Cyprus has had these for two years without leaving the euro, but that was done in concert with its partners. If Greece ever got to this stage—a parallel currency in circulation, capital controls in place and bail-out cash withheld—the gap between default and exit would be paper-thin. ■

Airlines

Flights of hypocrisy

The airline business is riddled with protectionism. The answer is open skies



IT IS a remarkable piece of detective work. Investigators hired by three big American airlines have scoured the world for the regulatory filings of three fast-growing rivals owned by Gulf states—Emirates, Etihad and Qatar—and stitched together the most detailed picture yet of the ways in which their governments have pampered them. According to the American carriers, which released the supporting documents for their allegations this week, airlines in Dubai, Abu Dhabi and Qatar have enjoyed a host of benefits, including handouts, "loans" without interest or any schedule for repayment, free land and below-cost charges at state-owned airports. Over the past decade this was worth a total of $42 billion.

Delta, American and United Airlines, the carriers that sponsored the investigation, are shocked—*shocked*—to find that government aid is being provided to the aviation industry. But by pointing out the motes in the eyes of rivals, they draw attention to the planks in their own. Another American lobby, representing business travellers, has dug out a study undertaken by the Congressional Research Service in 1999. It reckoned that, since the dawn of American commercial aviation in 1918, the federal government had helped airlines in all sorts of ways, from direct subsidies to the building of airports and control towers, to the tune of $155 billion.

Much of that largesse ended long ago. But a tax break on aviation fuel that benefited Delta by tens of millions of dollars a year got the chop only this month, after a vote in Georgia, where the carrier is based. And if the Gulf states' ban on unions, which keeps labour cheap, constitutes an "artificial" advantage, as the American carriers claim, then perhaps America's business-friendly bankruptcy law, which has let its airlines shed pensions and other liabilities, counts as one too?

America's three biggest international airlines have good reason to be worried: the Gulf "super-connectors" have been gobbling up European carriers' market share on long-haul routes to Asia, have made inroads into fast-growing African markets and are now steadily extending their route maps to American cities (see page 60). But there are many good reasons, besides generous state owners, why the super-connectors are doing so well: the advantageous positioning of their home bases, between Europe and Asia; their superior service and slick marketing; and their fleets of efficient new planes.

Fling wide the departure gates

These arguments about which airline gets which subsidy are just the latest chapter in a dismal tale. For all the talk of "open skies", the aviation industry is and always has been riddled with protectionism and patronage, bail-outs and handouts. Once it was the American railways griping about unfair competition from the nascent airline industry. Now it is the airlines, or some of them at least, moaning about unfair competition from foreign carriers. All the while the interests of producers are centre-stage, those of consumers and taxpayers forgotten.

Instead of using its carriers' complaints as justification for more protection, America would do more for its citizens by ending its restrictions on foreign ownership of airlines and offering complete freedom to operate internal flights. American consumers would gain regardless of whether governments, in the Gulf and elsewhere, reciprocated, just as American taxpayers would gain if government subsidies were to come to a stop. If Etihad or Ryanair or whoever wants to run services from Dallas to Los Angeles, they should be able to. Antitrust regulators should force American airports to open up slots and check-in counters to allow in fresh competitors. The same logic is true for Europe—and also for the Gulf states.

The benefits to economies of truly open skies, rather than the slightly ajar ones of today, would far outweigh any losses to individual airlines. A study in 2006 sponsored by the travel industry found that fully liberalising just 320 of the 2,000 bilateral aviation agreements that it identified would produce what was then a Brazil-sized boost to global GDP. However cosseted the Gulf airlines, protecting legacy carriers is a victory for patronage over passengers—it should stop. ■

Not equal at birth

Regarding the effect of prenatal health on life outcomes ("Unequal beginnings", April 4th), another factor that must be considered is the cultural norm in many poor countries of the preference for a son, or for the eldest son, which can prompt families with limited resources to move nutritional and health-care investments away from mothers pregnant with a daughter or a second son. This reallocation explains an enduring mystery: why Indian children are more stunted than sub-Saharan African children, even though their families are richer and maternal and infant mortality rates are lower. There is a steep drop-off in investments in children of higher birth order in India, and not in Africa.

The development of DNA-based tests on the mother's blood that can provide much more reliable information on the sex of a fetus than ultrasound, and at an earlier stage of pregnancy, will increase the potential costs both to female children and to their mothers of low investments by families in their welfare. The future well-being of millions of children demands that we act now to change cultural norms.

ROHINI PANDE
Professor of public policy
Harvard Kennedy School
Cambridge, Massachusetts

Powerful prime ministers

British prime ministers and American presidents are indeed very different creatures (Letters, April 11th). Once a prime minister has a majority in the House of Commons he can push through bills drawn up by the executive almost at will. Committees can probe but have little real impact if the executive wants to get something done, as Lord Hailsham pointed out in the 1960s.

Compare this with the American presidency. The president has no direct leverage over his party; negotiations take place ultimately between the House of Representatives and the Senate. Gridlock occurs whenever a majority in one chamber refuses to go along with the other. The president is frequently isolated with his White House advisers, having to cajole and even beg, often in public, and he often loses.

When there are congruent majorities, as in the first two years of the New Deal in the 1930s or briefly under Lyndon Johnson in the 1960s, or perhaps less so in Barack Obama's first two years, then things do get done. But the record of the past four years in particular has been one of gridlocked government rooted in an anachronistic 18th-century constitution with a dysfunctional separation of powers.

One may disagree with what a government and its prime minister does in Britain, but essentially when he, after negotiations in the cabinet, wants to get something done, it gets done. Presidents throughout American history have been stymied by the lack of effective presidential powers in an era of growing gridlock.

PHILIP CERNY
Professor emeritus of politics
University of Manchester
York

Online and offline rights

The debate on privacy has unfortunately reached a point where the digital domain is seen as *sui generis*; the normal rules on security issues apparently should not apply in the same way as they would in the physical world (Charlemagne, April 4th). If we can argue, as the UN Human Rights Council and others have done, that human rights apply in the same way online as they do offline, shouldn't this also apply to the tools available to our security agencies to fight crime and terrorism?

JOHN BILLOW
Brussels

Taiwan's lesson in trade

Your article on prosperous special economic zones overlooked the pioneering success of Taiwan's Kaohsiung Export Processing Zone ("Political priority, economic gamble", April 4th). Designed to attract foreign investment and know-how as well as boost exports, the Kaohsiung model was meticulously studied by Deng Xiaoping and China's economic reformers when they sought to breathe life into the economy. Kaohsiung influenced the creation of Shenzhen and was the inspiration for the Zhuhai and Xiamen special economic zones.

WILLIAM SHARP
University of Hawaii, Manoa
Honolulu

The final shot in the civil war

The closing act of America's civil war was General Robert Lee's capitulation to the Union Army on April 9th 1865 ("The present past", April 4th), but the last Confederate surrender was that of the CSS *Shenandoah* a battleship, on November 6th 1865 in Liverpool.

As the world's pre-eminent city in trading cotton, Liverpool's sympathies lay firmly with the Confederate government, which stationed James Bulloch there to muster financial support and oversee construction for its navy. The *Shenandoah* was one of its most successful ships, sinking, capturing or bonding 38 Union vessels. It hammered away at the Union's merchant fleet long after General Lee laid down arms, firing the last shot of the war in June 1865 at a Union whaler off the Aleutian Islands, according to John Baldwin's "Last Flag Down".

The *Shenandoah*'s commander, Captain James Waddell, only learned of the war's end on August 2nd while heading for San Francisco to lay siege to its harbour. He decided to head for Liverpool in case he and his crew were tried for piracy, sailing 9,000 miles around the Americas to avoid capture.

Waddell surrendered to the lord mayor of Liverpool three months later. The *Shenandoah* and three other Confederate ships were handed over to the United States' consul and sold at auction for war reparations. Captain Waddell and his crew, however, were set free and avoided the unpleasant fate that befell most pirates.

DOUGAL PAVER
Liverpool

You said that "the South has long since been transformed by civil rights and air conditioning". You forgot the third essential: bug spray.

JIM MARTIN
St Petersburg, Florida

The sum of a preacher man

Schumpeter succinctly outlined Robert Schuller's business failings as a pastorpreneur (April 11th). Although he preached self-esteem, Schuller himself fell victim to the sin of hubris. He thought everything he touched would turn to gold, including his lacklustre successors that he imposed on his faithful tithers, who in turn started to cancel their subscriptions. Thus, pastor Schuller violated the first rule of running a business: the customer is the king.

RAJIV THIND
Brisbane, Australia

Your columnist noted that Schuller's Protestantism "owed as much to Norman Vincent Peale...as it did to Martin Luther". Schuller and Peale were ordained in the Calvinist reformist tradition. Both, though, often seemed to forget John Calvin's call for God's chosen people "to prepare for a life that is hard, difficult, laborious and full of countless griefs."

DAVID BOVEN
Chicago ■

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For those in peril

ALEXANDRIA, AMSTERDAM, BAMAKO AND CATANIA

As long as there is suffering and poverty beyond its shores, people will try to get into Europe. They need not die doing so

EVERY coin that he is left as a tip brings Daouda Boubacar a step closer to Europe. The 22-year-old, a waiter in a busy café on the outskirts of Bamako, the capital of Mali, is saving for a journey that will take him by bus to Gao in the north. From there he hopes to travel by lorry across the Sahara to Algeria and then Libya. That will open up the uncertain prospect of crossing the Mediterranean by boat in order to find a better paying job on the other side. He has saved $1,500 so far; he thinks he will need more than that.

Like most west Africans considering such a trip, Mr Boubacar knows the risks. Reports of migrant deaths in the Mediterranean spread quickly over social media. Even so, it is easy to find Nigerians, Gambians and Senegalese passing through Bamako on their way north. As a Ghanaian welder sitting outside the café puts it, "Life is dangerous wherever you go. I could be killed on a building site here. So I go."

In Egypt Fares Albashawat also dreams of a passage to Europe. After being shot a number of times by forces loyal to Bashar Assad, the president, he fled his native Syria for Lebanon. When word came that militants from Hizbullah were looking for him the family upped sticks again, making it to Egypt in July 2013, a week before the government stopped admitting most Syrian refugees. Mr Albashawat, still suffering from his wounds, could travel no farther, and has been seeking resettlement through the UN High Commissioner for Refugees. Around the beginning of April his wife, tired of the wait, chose to leave Alexandria and continue to Europe with their daughters.

A Facebook page for Syrian refugees has now confirmed that his family has reached Italy. Asked about the danger they faced on the trip, Mr Albashawat replies, "What danger? This is nothing compared with the danger we saw in Syria."

Angry tumult

The smuggling of people across the Mediterranean is not new; nor are the losses at sea that come with it. In 1996 at least 283 people died on an illegal voyage from Alexandria to Italy. But the trade has vastly expanded over the past few years thanks to two developments.

The civil war in Syria has driven what the International Organisation for Migration (IOM) calls "the biggest movement of people since world war two", with 8m people displaced inside the country and 4m leaving it. Most of these refugees stay in neighbouring countries. But many wish to go farther. In Turkey, which can be reached by ferry from Lebanon, they can join the flow of migrants from South Asia and Afghanistan, eventually entering Greece by boat. Alternatively they can head for Libya, either through Egypt or by flying to Sudan and joining one of the smuggling routes that cross the Sahara. There they will meet refugees fleeing Eritrea, a country which, with its mixture of indefinite military service, torture, arbitrary detention and all-round repression has one of the worst human-rights records in the world.

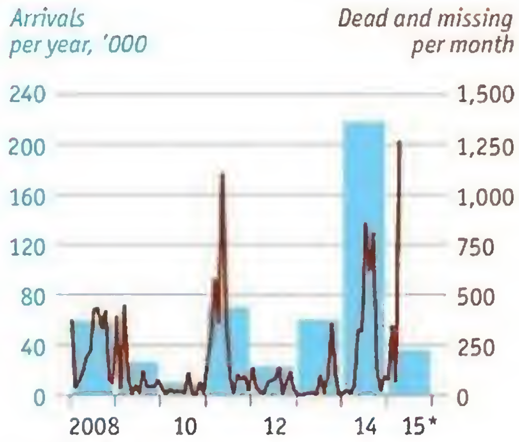
The routes head for Libya because another post-Arab-spring civil war has made it a much easier way to get to Europe. The smuggling routes which used to take people to Libya as an end in itself—moving there was for a time an attractive proposition for many in sub-Saharan Africa—now continue right through it and into the sea.

These two developments explain why the UN's tally of migrants crossing the Mediterranean in 2014 was, at 219,000, nearly four times larger than the figure for the year before (see chart 1 on next page). Economic migrants like Mr Boubacar and refugees like Mr Albashawat can now frequently find themselves heading to sea together (though in all likelihood a wealthier Syrian like Mr Albashawat would be above decks and Mr Boubacar below).

But these developments do not, of themselves, explain why such people so often now end up dying together. The Italian government says 23,556 people had entered Italy irregularly by sea by April 19th this year, compared to 20,800 during the same period in 2014; the total number making the crossing, given the season, thus seems not to have risen year-on-year. But ▸▸

The crossing 1

Migrants to Europe via the Mediterranean



Sources: UNHCR; International Organisation for Migration *April 21st

the number of migrants who have died has shot up. Even before the tragedy of April 19th, when a boat sank about 50 nautical miles (100km) off the Libyan coast, killing hundreds, this year's tally of lives lost stood at 954, compared with just 96 to the end of April last year.

Exactly how many more died on April 19th is hard to say. The smugglers' boat was in the process of being rescued by a Portuguese freighter when the two collided. One survivor has said 700 people were on board, another 950; other accounts put the number at around 400. What is known for sure is that the vessels which answered the distress call from the Portuguese ship were, between them, unable to find more than 28 survivors. "We stayed there for hours and hours, but all we found were jackets, rucksacks, caps and a big oil slick," Vincenzo Bonomi, the skipper of a fishing boat told *Il Fatto Quotidiano*, an Italian newspaper. Just 24 bodies were recovered. Shock at the scale of the loss led to an emergency summit of European Union heads of government that was taking place on April 23rd as *The Economist* went to press.

Wild confusion

The obvious reason for the recent increase in deaths is that less is being done to avert them. In October 2013, after 366 migrants lost their lives off Lampedusa in another disaster, the Italian government launched an ambitious search-and-rescue operation, Mare Nostrum. It made use of an amphibious warship and two frigates, and had five naval vessels on patrol at all times as well as support from the coast guard. The navy claims the operation led to the rescue of more than 150,000 people and the arrest of 330 smugglers.

But a year after Mare Nostrum's launch by the government of Enrico Letta it was shut down by Angelino Alfano, interior minister in Matteo Renzi's new left-right coalition. Mr Alfano, who leads the New Centre Right, a conservative party, was in an uncomfortable position given the outright rejection of Mare Nostrum by the other parties of the Italian right. They complained that it had the effect of making the navy part of the smugglers' business plan. The smugglers did not need to get their cargoes to shore, merely to abandon them where the ships of Mare Nostrum would pick them up.

The programme's critics in Italy and elsewhere in the EU went on to argue that although it seemed to save people, by encouraging people to risk their lives it actually led to more deaths. As the British government put it, there was "an unintended 'pull factor', encouraging more migrants to attempt the dangerous sea crossing and thereby leading to more tragic and unnecessary deaths".

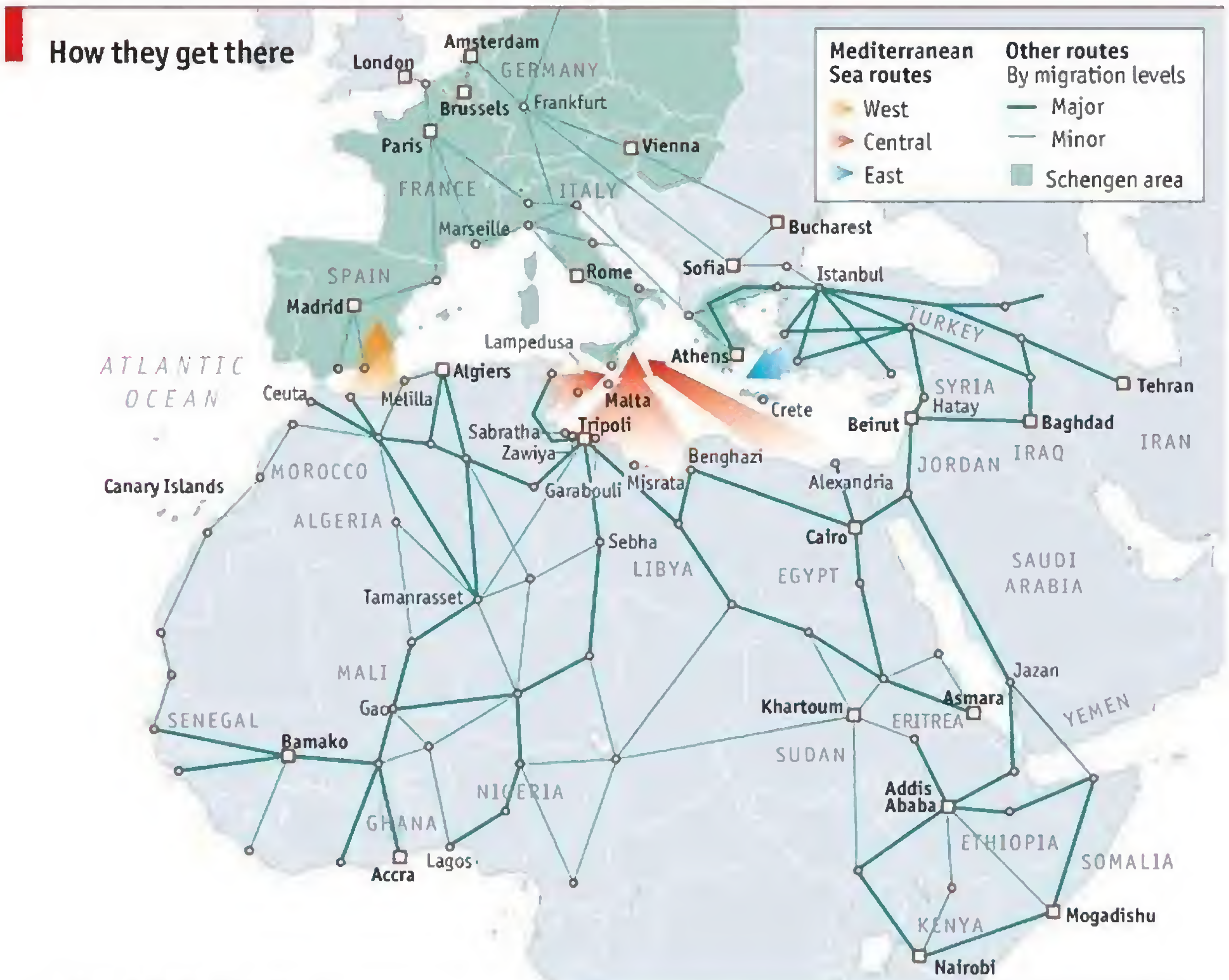
When Mr Alfano, frustrated by the lack of support from the rest of the EU, closed down Mare Nostrum in October 2014 it was replaced with Operation Triton, run by Frontex, the EU's border-control agency. Triton has fewer resources, less than a third of the budget and a narrower remit. Though its coastguard vessels have taken part in many rescues, they do not actively search for boats in distress more than 30 nautical miles from the Italian coast.

The unchanged numbers of migrants reaching Italy strongly suggest that making the crossing more dangerous has not reduced the pull factor at all. It is hard to say for sure that Mare Nostrum would have made a difference on April 19th; the smugglers' boat might have sunk during the rescue even had the Italian navy been there. But the overall figures argue strongly that, by making the passage more risky, the move from Mare Nostrum to Triton has cost many innocent lives. "I just hope this latest mass killing will shake the consciences of the international community," Italy's coastguard commander, Vice-Admiral Felicio Angrisano, said on April 20th.

There may be some shaking. A ten-point EU response, outlined by home-affairs and foreign ministers on April 20th before the summit on the 23rd, reversed course to a degree. It promised to increase resources for Triton, though without explicitly mentioning search and rescue, the main feature distinguishing Triton from its predecessor. Donald Tusk, who as president of the European Council will chair the summit, declared: "The situation in the Mediterranean is dramatic. It cannot continue like this."

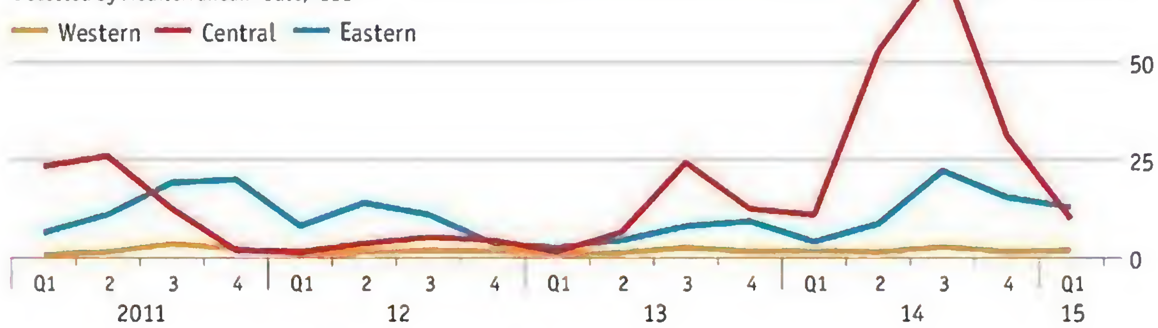
It will, though, be very hard to change. The countries of the EU all have their own asylum systems; there is no mechanism for sharing refugees across the union. Under ▸▸

How they get there



Illegal border crossings

Detected by Mediterranean route, '000



Sources: International Centre for Migration Policy Development; Frontex

the so-called Dublin regulation it is the responsibility of the first European country that any asylum-seeker arrives in to have him fingerprinted and hear his application; if he is granted asylum, his right to remain applies only to that country.

Italy and other southern European countries argue that this places a disproportionate burden on them. Other countries retort that Italy often skirts that burden by neglecting to fingerprint applicants and letting them go where they will—which in practice means anywhere in the borderless Schengen area. Economic migrants know that, if at all possible, they should avoid getting fingerprinted and head north. Very few failed applicants for asylum get deported from Italy; a lot of economic migrants get in and move on, say other European countries.

So item five in the ministers' ten-point plan demands a renewal of the commitment to fingerprinting of all migrants. The European Asylum Support Office will deploy teams to Italy and Greece to help them with the painstaking task of processing asylum applications. There will also be a "new return programme" to speed up the repatriation of boat people deemed to be illegal immigrants.

Appointed limits

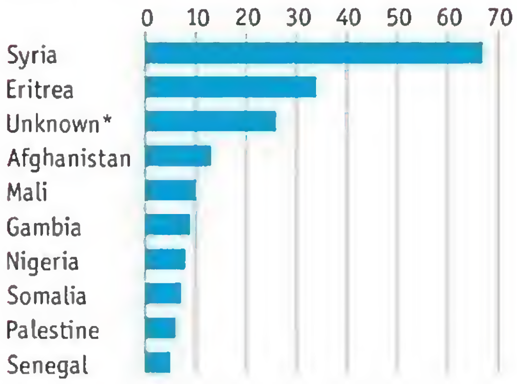
Speeding things up is popular when it comes to refugees and asylum. In France Manuel Valls, the prime minister, has promised to slash the time it takes to resolve asylum applications. Germany's interior minister, Thomas de Maizière, has argued for something similar. Both like the fact that rapid decisions can be pitched to the political left as helping refugees gain certainty, and to the right as helping deport those who do not deserve to stay. Taking into account the views of the anti-immigration right is seen as vital by most European governments.

That is why item six in the plan, which says that the EU will "consider options for an emergency relocation mechanism"—that is, a means of more fairly sharing refugees around Europe—is likely to be most contentious. The anti-immigration right wants to portray boat people as being for the most part illegal economic migrants, but a great many of them are not. Half of last year's arrivals in Italy were from Syria and Eritrea (see chart 2) and, on an EU-wide basis, applicants from those countries got first-instance refugee status two-thirds of the time in the last quarter of 2014. A fair deal would need to parcel out tens or hundreds of thousands of Syrian and Eritrean refugees across the EU, and that will be hard to sell; some EU countries are a lot more welcoming than others (see chart 3).

That is why the EU's focus is likely to be on dealing with what it wants to portray as the source of the problem—that is, not with its own arrangements and dysfunctional politics, but with the channels by which people get to its shores in the first place.

Where they come from 2

Illegal border-crossings to the European Union by sea, biggest countries of origin, 2014
'000 detections



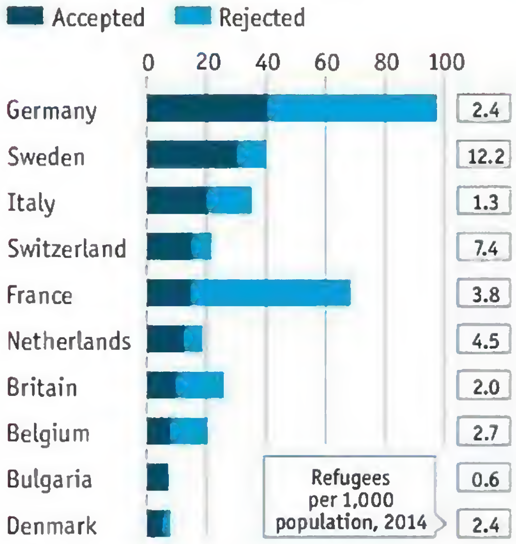
Source: Frontex *Unspecified sub-Saharan nationals

Co-operation with willing neighbours can produce results. And willing neighbours do not need to be nice ones. Italy used to do deals with Libya's Colonel Muammar Qaddafi to shut off migration routes for a time, though he would periodically threaten to renege and send as many migrants as possible. These days, though, the writ of the internationally recognised government does not run over the ports where the migrants embark—Zawiya, Sabratha, Garabouli and Misrata. Officials from the rival administration in Tripoli, which is closer to those towns, offer the help they might provide as a reason to give their faction recognition. "We know how much the Europeans worry about this," says one. "If they don't help us, we all suffer." But Europe is not eager to recognise a motley bunch of militias, some of whom are Islamists.

There might still be unilateral options. The ten-point plan talks of sharing intelligence about people-smuggling networks, and in its promise to make "a systematic effort to capture and destroy vessels used by the smugglers" it even hints at military action. There is an allusion to an anti-piracy campaign, known as Operation Atalanta, in which EU helicopters strafed the boats and fuel dumps of Somali pirates. The prospect of EU countries taking such action in Libya, though, seems remote; they have not recently been much given to such poking at hornets' nests.

Where they go 3

Decisions on asylum applications, 2014, '000



Sources: Eurostat; UNHCR

If they were to do so there would be a risk that, like making the sea crossings more dangerous, such actions could end up hurting the people trying to migrate as much as, or more than, the people profiting from their migration. Part of the recent rise in the death toll may be due to the fact that the smugglers are already running short of boats and forcing ever more people onto the ones that remain. Twice this year, armed smugglers have taken back their vessels after a rescue operation—a sign that boats are becoming more valuable. As boats get scarcer, ever more people are forced onto each of them, often at gunpoint. Flavio Di Giacomo of the IOM says one recent arrival showed him scars on his arms and legs where he had been slashed with a knife to force him onto the boat.

Fire and foe

This is not the first brutality they will have faced on their journey. Some migrants are forced to work until they earn the smuggler's fee, which invariably rises. Others are imprisoned in half-built houses or held in the desert until their families back home agree to pay ransoms. Just as ancient forms of networking co-ordinate smuggling trails across different countries, so modern networking allows a Libyan smuggler to get a Sudanese counterpart to collect payments from a migrant's family in Khartoum. Many migrants are tortured, sometimes while on the phone with relatives for greater effect. Women face the additional risk of sexual violence.

The smuggling networks are highly lucrative. An Eritrean's passage to Libya may cost $6,000, though a Malian might only pay a tenth of that. The UN says shipping migrants towards Europe from Libya is a $170m industry. The smugglers combine criminality and tribal loyalty and are very adaptable to changes in circumstance. So although better-shared intelligence on the part of the EU and local states may get some results, it is highly unlikely to shut the trade down. Control of Libya's ports could do more, though it would leave the problem of more than 500,000 would-be migrants stuck in a country that does not want them and with no way back home.

And if the situation in Libya were tightened up, new routes would emerge. Not that long ago the main route for Africa's economic migrants was across the Atlantic to Spain's Canary islands; at other times the boat people set out mainly across the Aegean Sea to Greece. When the regime of Zine el-Abidine Ben Ali collapsed in 2011 migrants set forth en masse from Tunisia.

Thus the EU is also looking at the possibility of processing claims to refugee sta-

tus outside the EU—either in north Africa or in the countries Syrians first enter on leaving their own. There is talk of an EU "pilot project" to resettle about 5,000 Mediterranean refugees. It would require a process for selecting beneficiaries and for choosing where in the EU to send them on the basis of some sort of "distribution key" based on size of population, economic strength, unemployment rates and the number of refugees already taken in. This might be the start of greater harmonisation in EU asylum policy.

Mr de Maizière has proposed establishing centres in north Africa to review asylum applications at the source—another policy that can be presented as tough or generous, depending on the audience. Having a base beyond your shores at which to do such things has been tried by others: America lands refugees from Haiti and elsewhere at its Guantánamo Bay base on Cuba; Australia takes them to the island-state of Nauru and to Manus island in Papua New Guinea, never letting them onto its own soil. Australia has diverted hundreds of boats in recent years; only one has even entered its territorial waters since the end of 2013. But the tough policy has come at a great cost to the country's reputation (see box).

Besides, Europe lacks a convenient island nation open to aid-for-boat-people inducements. And its law adds protections for refugees beyond those that American and Australian lawyers claim to see in the 1951 UN convention. In 2012 the European Court of Human Rights ruled that boat people must be given a fair chance to apply for asylum and may not automatically be sent back even if rescued in international waters.

A processing centre in north Africa might deal both with migrants reaching it over land and with those saved from the seas, should it meet the court's criteria. It would, though, require a stable regime to host it, and might very easily become a target for terrorism. And it—or they—would attract vast numbers of migrants from elsewhere in Africa.

One who survived

In the case of the last great maritime refugee crisis, that of the Vietnamese boat people, it took concerted measures by many countries to get to grips with the problem. More than 1m people were resettled around the world; merchant ships were compensated for their rescue efforts; eventually deals were struck with Vietnam for the orderly departure of refugees and the repatriation of the undeserving. For the world to help Europe in such an effort when Europe has, so far, shown no real ambition in sorting out the issue itself, though, would seem far-fetched.

And in the long run migration north to Europe will never just be a matter of refugees. Though chaos and civil war are hardly likely to leave the Arab world soon, chronic underdevelopment and accompanying political instability in parts of sub-Saharan Africa look set to last even longer. And the population there is expected to double over the next 30 years. There will be a lot more young men like Mr Boubacar.

There are many worse places to live than Bamako. It is a reasonably sophisticated city; Mali's economy grew 7.2% last year. But Mr Boubacar wants out. "No matter how hard I work, I'm doomed. My father did not have a regular salary, I don't, nor will my children." No job lasts longer than a few months, no place in school is assured, no gain is safe from theft. Economic anxiety is mixed with fear of political violence. Half of Mali fell to Islamic extremists three years ago. A French-led intervention pushed them back, but no peace deal has been signed, and terror attacks remain common. And Mali is far from the only country in the region to be threatened by political instability—or, for that matter, by climate change, which could lay low economies and governments. The forces that move a man to economic migration today could make him a refugee tomorrow.

And all the time pictures of seemingly attainable prosperity glisten on the television screen in the back of Mr Boubacar's café. The vision can seem like a mirage, but everyone knows someone who can attest to its reality. A man sitting outside the café says he has heard of several people who have made it all the way to Europe and sent back glowing reports. But he also knows that they are the lucky ones. "The ones who die we never hear from. They can give no advice." ■

Refugees in Asia

"Stop the boats"

SYDNEY

Australia's uncompromising tactics

MULTICULTURAL and prosperous, Australia is notable for its welcome to migrants—and for its intolerance of boat people. In 1992, the Labor government of Paul Keating introduced a policy of "mandatory detention": asylum-seekers in boats would be locked up, pending assessment of their claims.

But the number of boat people only rose. By the turn of the millennium it was 4,000 a year, at which point John Howard, head of the (conservative) Liberal government, resorted to his "Pacific solution". Boat people would be sent to new detention camps on Manus Island, in Papua New Guinea, and on the island-state of Nauru. The contentious policy was overturned in 2008 by the Labor prime minister, Kevin Rudd, but reinstated by Julia Gillard, his Labor successor.

Tony Abbott, the current Liberal prime minister, campaigned on a promise to "stop the boats". He has been tougher even than Mr Howard. On April 17th an Australian naval vessel offloaded 46 Vietnamese asylum-seekers in Vung Tau in southern Vietnam after intercepting them at sea. The UN and others question whether their asylum claims had been screened properly. Australia has struck a deal with Cambodia to resettle some of the 485 people in Nauru now recognised as refugees (about four-fifths of those assessed). But those offered this "new life in a safe country, free from persecution and violence" have not taken the offer up.

Australia admits about 200,000 immigrants a year through regular channels. It also resettles some 13,750 refugees a year from other parts of the world. But when it comes to boat people, it is bent on deterring irregular migration.

The government claims that just one "people smuggling venture" has made it to Australian waters since December 2013, and that boat's passengers were transferred to Nauru. But the policy has financial and reputational costs. The detention centres cost A$3 billion ($2.3 billion) in the 2014-15 fiscal year. Human-rights groups chastise Australia for abandoning its obligation to protect asylum-seekers. Mr Abbott, though, is unrepentant and thinks Europe should get tougher. "The only way you can stop the deaths is in fact to stop the boats."

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Fighting the secret plot to make the world richer

As America inches towards a big trade deal with Asia, Barack Obama faces a showdown with his party

PRESIDENT BARACK OBAMA is itching to sign one of the biggest trade deals in American history. The Trans-Pacific Partnership (TPP) would link 11 economies of the Pacific rim—including Japan and Singapore—with America. These 12 countries together account for 40% of world GDP and one-third of trade (see chart 1). As well as dismantling tariff barriers, the TPP is meant to tackle tough issues such as intellectual property, labour and environmental standards. American trade negotiators predict that by 2025 the TPP will make the world $220 billion a year richer.

Many Democrats, however, fiercely oppose it. Sandy Levin, a Democratic congressman, growls that he is "out to defeat" Mr Obama's plans. Hillary Clinton has conspicuously withheld her endorsement. Labour unions hate the TPP. If it passes, it will be because Republicans in Congress, for once, back Mr Obama.

The geopolitical aspects of the deal are hardly controversial. Friendly ties with Asian allies are obviously important. China has been flexing its military muscles over disputed islands and is trying to build up regional influence with projects such as the Asian Infrastructure Investment Bank, of which America is not a part. The TPP could help America retain its sway in Asia, boosters argue. If the 12 TPP countries plump for common trade standards (for instance, mutual recognition of regulatory approval processes in medical services), then those rules—not China's—could function in effect as global ones, given the fat chunk of world GDP they would govern.

Congressional Republicans and Mr Obama argue that by boosting exports, the deal would make America richer. Jason Furman, the chairman of the president's Council of Economic Advisers, says that by 2025 the TPP would raise American incomes by 0.4% per year. Public support for foreign trade is high. Gallup finds that 58% of Americans see it mostly as an opportunity—a figure that has risen 17 percentage points since the recession—and only 33% see it as a threat. Republicans' views have not changed much, but the proportion of Democratic voters who see trade positively has shot up from 36% to 61% since 2008 (see chart 2). This may be because Democrats are more likely to be in jobs that benefit from globalisation, or it may simply be because there is now a Democrat in the White House pushing trade deals instead of a Republican.

Nonetheless, opposition to the deal is strong. Democratic politicians are much less trade-friendly than Democratic voters or the country as a whole. Many fret that imports from low-cost countries such as Vietnam will hurt American workers in industries such as carmaking and textiles.

This is not a foolish worry. Globalisation has filled people's shopping trolleys with cheaper, better goods: the US Chamber of Commerce estimates that imports boost the average American family's purchasing power by $10,000 a year. However, trade has probably also held down blue-collar workers' wages in rich countries. A new paper, from Ann Harrison of the University of Pennsylvania and colleagues finds that if there had been no imports, median real wages in America in 2008 would have been 3% higher than they actually were. For workers in menial tasks, they would have been 15% higher. Another paper found that a quarter of the employment decline in American manufacturing from 1990 to 2007 was caused by ▸▸

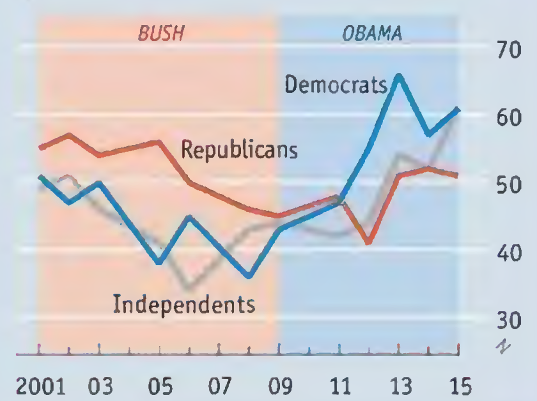
The size of the prize 1

United States services trade, 2013, $bn

*Transatlantic Trade & Investment Partnership †Trans-Pacific Partnership ‡North American Free Trade Agreement
Source: Congressional Research Service

A good time to make a deal 2

Americans who view foreign trade as an opportunity
%



Source: Gallup

competition from Chinese imports.

Yet it is difficult to blame trade deals for this. America has no free-trade agreement with India, yet imports of goods from there have more than doubled over the past decade. Though many Democrats see NAFTA, a deal with Canada and Mexico that Bill Clinton signed in 1993, as a disaster for America's workers, the consensus among economists is that it did not have much effect on the labour market. The effects of the latest deal are unlikely to be very different. What is more, thanks to pressure from Democrats, any trade deal would also include extra "trade-adjustment assistance": ie, help for those whose jobs may be threatened by it.

Barack Obama, corporate shill?

This will not reassure everyone. The TPP is big—there are nearly 30 chapters—and since large chunks of the negotiations are kept secret, many worry that American workers, human rights and the environment will soon be at the mercy of the "global corporate agenda" that Mr Obama somehow represents. Many of these concerns are overblown. In TPP negotiations America is pursuing provisions similar to the "May 10th Agreement", a deal which included workers' rights and has appeared in other American trade pacts.

Other parts of the TPP will irk greens. In recent months America seems to have softened its language on the environment, possibly to win over poorer trading partners. Mr Levin complains that the TPP "does not address whether or how climate-change issues should be handled".

The TPP might not be so controversial if talks were conducted openly. Jeffrey Schott of the Peterson Institute, a think-tank, argues that although negotiators need input from those who will be affected—including businesses and trade unions—making the negotiations public might make it difficult to balance the demands of competing interest groups. However, secrecy may now be so strict that it ends up irritating everyone. In an attempt to make the plan stick, senior Democrats say that a final trade agreement must be subject to public consultation before Congress votes.

Many Democrats also grumble that the TPP says little about "currency manipulation", by which countries deliberately hold down their currencies to boost exports. According to a paper from the Peterson Institute, currency manipulation may be responsible for half of America's "excess unemployment" (joblessness above what economists call "full employment"). Among the countries the paper designates as "currency manipulators" are Japan and Singapore. Some simple, even lax, rules on currency manipulation would appease many of the sceptics, though such manipulation is fiendishly hard to define.

Economists worry that cluttering up trade pacts with rules about labour, greenery and currencies dilutes the benefits of free trade and gives its opponents extra tools to block the deals entirely. However, there is scant chance of getting any deal through Congress without such sweeteners. On April 16th congressional leaders settled on a bill to give Mr Obama "Trade Promotion Authority" (TPA), also known as "fast track". This is very important: if the bill passes, it would allow the president to negotiate a deal and then submit it to Congress for a yes-or-no vote, with no amendments. Without this power, it is hard for Mr Obama to make credible promises, since Congress could shred them later. Past deals have nearly always been negotiated using fast track, which expired in 2007.

Mr Obama's ability to conclude TPP and an even bigger proposed pact with Europe, the Transatlantic Trade and Investment Partnership, hinges on him getting fast-track authority. Most Republicans in Congress, where they hold a majority in both chambers, are likely to support him—they believe in free trade and are keen to show that they can govern. But both TPA and TPP will need a few Democratic votes to pass. And with so many Democrats in Congress, not to mention darlings of the left such as Elizabeth Warren, either anti-trade or seeking to build a post-Obama identity, that is far from assured. ■

Republican presidential hopefuls

A field guide to 2016

WASHINGTON, DC

How to tell the A-listers from the publicity seekers

"RUNNING for office is real simple," Ted Cruz told supporters in New Hampshire recently, within earshot of a *Politico* reporter. "You just surgically disconnect your shame sensor. Because you spend every day asking people for money. You walk up and say, 'How are you doing, sir? Can I have money? Great to see you, lovely shirt, please give me money'." This year should be a good one for shame surgeons: the Republican field for 2016 so far consists of 20 men and one woman who have either declared their candidacy for president, set up the machinery for a run or expressed an interest in running.

Making sense of this stampede requires sorting them into categories. We have come up with six (see table). Of the 21 only six candidates—the A-listers and the Dark Horses—look plausible. Most pundits have been too quick to discount Chris Christie, the governor of New Jersey, who reminded them why his candidacy might be interesting by announcing support for raising the retirement age and means-testing Social Security, two things that are usually considered the electoral equivalent of drinking weedkiller. The same is true of John Kasich, the governor of Ohio, who has been quiet thus far but is a moderate with a good record from a crucial swing state.

The largest group is made up of those who have no chance of winning but will benefit from the publicity that a presidential run, however quixotic, brings. Mike Huckabee's career on cable TV gets a boost from being taken semi-seriously as a politician, and his campaign would double as a book tour. Rick Santorum, a former senator, and Ben Carson, a brain surgeon, have books to sell. John Bolton, a neoconservative intellectual, and Pete King, a congressman, would just like more attention.

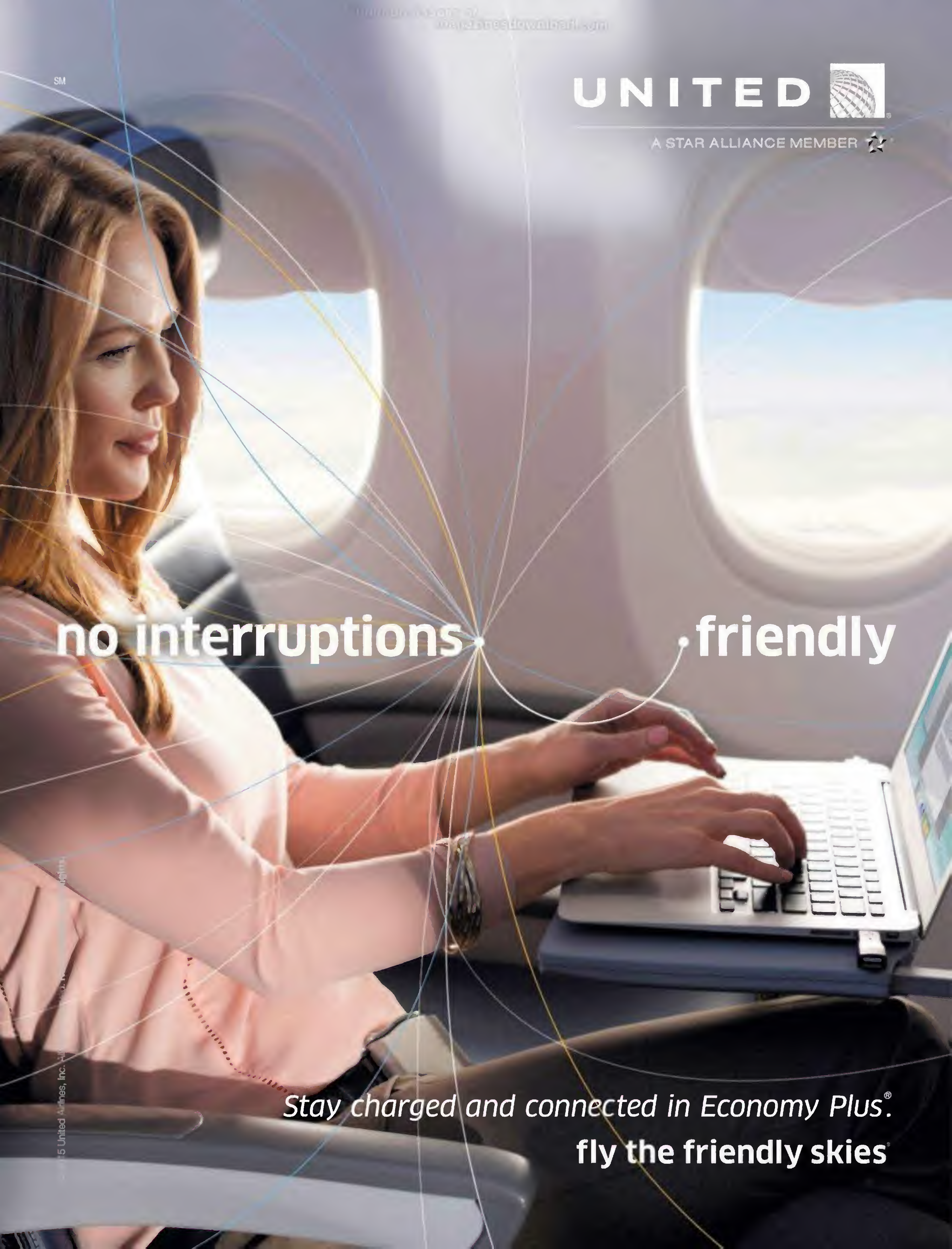
The Job Hunters are almost as numerous. These people have better CVs than most of the self-publicists, but also no chance of winning. A presidential bid could remind people that they exist and might be worthy of a post in a new administration, or in a lobbying firm if the Republican candidate loses. That leaves the Insurgents, Senators Ted Cruz and Rand Paul, who are likely to push other candidates into positions they might find uncomfortable but will not get the nomination. The final group is the No Hopers, among whom Lindsey Graham, a likeable, outspoken senator, gets an honourable mention.

There may be more still to come, a prospect that might require the construction of a double-decker stage for the first Republican debate in August. Another option might be to borrow some space from the Democrats, who currently have the opposite problem and would be delighted if a few more candidates materialised. ■

Pachyderms on parade

A-listers Currently out in front	Scott Walker Marco Rubio Jeb Bush
Insurgents Won't win but will make the race awkward for others	Ted Cruz Rand Paul
Dark Horses Merit a serious look	John Kasich Chris Christie Rick Perry
Publicity Seekers Have books to sell, TV careers to look after, causes to publicise	Rick Santorum Mike Huckabee Donald Trump John Bolton Pete King Ben Carson
Job Hunters Would like a post in the next administration, please	Bobby Jindal Carly Fiorina Bob Ehrlich George Pataki
No Hopers	Lindsey Graham Jim Gilmore Dennis Michael Lynch

Source: *The Economist*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Police culture

Wanted: cops with people skills

WASHINGTON, DC

When law enforcement is just about force, people are killed

TO THE sound of electric guitars, heavily armed police officers fire assault rifles, drive squad cars fast and pull their guns on fleeing crooks. "Are you qualified to join the thin blue line?" asks a narrator, in the sort of breathless voice you might expect in a trailer for "Fast & Furious 7". The advert's aim is not to sell movie tickets, however, but to recruit police officers in Gainesville, a city of 127,000 in Florida.

Would-be cops who take this video seriously are likely to be disappointed. The reality of the job, as one officer from a large west-coast agency explains, is far less glamorous. "The public want us to come up and deal with a neighbour who is mowing their lawn at 3am. They want us to deal with their disruptive child. They want us to deal with the crazy person who is walking down the street shouting." As crime has fallen across America since the 1990s, policing has shifted more towards social work than the drama seen on TV. Police culture, however, has not caught up.

The gap may help to explain why American police are so embattled. The latest controversy is the death of Freddie Gray, a 25-year-old man from Baltimore who died on April 19th after being arrested (six officers have since been suspended). That followed the killing on April 4th in South Carolina of a 50-year-old man, Walter Scott, who was shot in the back by a police officer after running away from his car (the officer was charged with murder after a video of the killing emerged). In another case in Tulsa on April 2nd, a 73-year-old reserve police officer killed a man when he accidentally fired his gun instead of his taser. All three victims were black.

No one knows how many people die in contact with America's roughly 18,000 law-enforcement agencies. The FBI publishes reports, but police forces are not required to submit data. The incomplete FBI figures show that at least 461 people died in "justifiable homicides" in 2013, an increase of 33% since 2005. Other sources suggest the true number could be as high as twice that. In Britain, by contrast, police shot and killed precisely no one in 2013.

American police resort to violence more partly because they meet it more. "We've never had a population who are so well-armed," points out Ron Teachman, the chief of police in South Bend, Indiana. Twenty-six police officers were killed with guns in the line of duty in 2013, far more than in any other rich country. "When you go to a police academy, the first thing they say to you is that it's dangerous and you could get killed out there," says Jim Bueermann, a retired police chief and the head of the Police Foundation, a think-tank.

Yet fewer police officers are killed now than in the past, and the number who are shot is less than the number who die in traffic accidents. Over time, suggests Mr Bueermann, a justified alertness to danger may have warped into a belief that the swift use of force is the only thing keeping cops safe. At its worst, this manifests itself in a fiercely defensive culture. For example, in Seattle last year more than 100 cops sued the Department of Justice to protest against a revised use-of-force policy, arguing that it would cripple morale and endanger cops (the case, which was not supported by the city's police union, was thrown out).

Talking about Eric Garner, a bootleg-cigarette-seller who died in New York last year when a policeman put him into a chokehold, one street cop argues that the police should not be blamed: "He was continuously fighting with the officer. What really killed him?" This cop says that officers have to subdue people forcefully, because the alternative is to let criminals do as they please. If there is a problem, he says, it is that too many cops are not well trained in how to use force safely and so rely on brute violence or, worse, their guns. Another, a lieutenant, adds that he thinks ▸▸

Police brutality in Chicago

Dark days

CHICAGO

The city's police have yet to put their murky past behind them

"TODAY we stand together as a city to try and right those wrongs, and to bring this dark chapter of Chicago's history to a close," said Rahm Emanuel, Chicago's mayor, on April 14th as he announced a $5.5m reparations package for (mostly black) suspects who were tortured by police in the 1970s and 1980s.

The next day the city council revealed that it is paying the family of Laquan McDonald, a black teenager fatally shot by a cop last autumn, as much as $5m to dissuade them from suing. The police refuse to release a video of the shooting, saying the investigation is still going on. Many Chicagoans are unimpressed.

On April 20th an outcry ensued after a judge cleared Dante Servin, a cop who shot Rekia Boyd, a black woman, in the head. Mr Servin's lawyers said that he mistook a mobile phone held by of one of Ms Boyd's companions for a gun, and opened fire because he feared for his life.

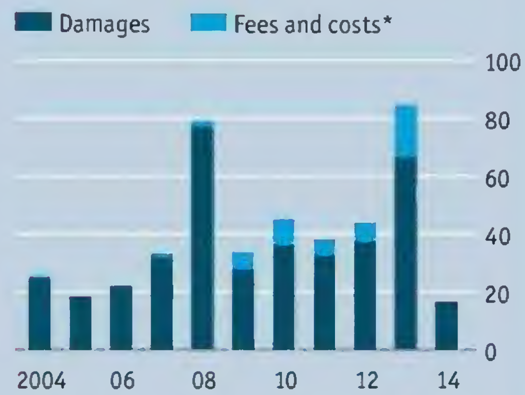
Chicago's cops shoot about 50 suspects dead each year—more than 75% of them black. The police are largely white and Hispanic and, consciously or otherwise, tend to associate blacks with criminality, says Craig Futterman of the University of Chicago's Civil Rights and Police Accountability Project. About 70% of murders in Chicago are committed by African-Americans, who are 33% of the population.

In March the American Civil Liberties Union (ACLU) published a study of a four-month period last year in which black Chicagoans were subjected to 72% of all stop-and-frisk searches. The police stopped 93.6 per 1,000 residents, according to the ACLU, far more than the 22.9 per 1,000 stopped in New York when stop-and-frisk was at its peak in 2011. (New York stops fewer people now, partly because the present mayor thinks the police overdid it in the past.)

Black Chicagoans distrust the police, so the cops are least effective in the poorest neighbourhoods, says Mr Futterman. Without transparency, trust cannot be rebuilt, he argues. Chicago paid a whopping $500m in claims related to police misdeeds between 2004 and 2014, according to the Better Government Association, a watchdog (see chart). Ms Boyd's family, for example, was awarded $4.5m in 2013. For a city in dire financial straits, which has closed mental-health clinics and public schools, all this adds up.

Shoot first, pay later

City of Chicago police misconduct payments, $m



Source: Better Government Association

*Excludes est. $80m in payments to outside defence attorneys

Do I look like a social worker?

that "the public needs to be educated better. We can't let our guard down because we're making ourselves less safe."

Yet force is often used to subdue low-level offenders like Garner, not just dangerous people. And it is unclear that armed policing is the best way to deal with all problems. At least half of all Americans shot and killed by police each year are mentally ill, says a report from the Treatment Advocacy Centre and the National Sheriffs' Association. Police officers also spend time dealing with drug addicts, domestic disputes and, increasingly, the enforcement of civil penalties against people who have not paid motoring fines or child support. Such people are not muggers or rapists, yet cops often treat everyone as a threat.

What is the solution? Many cops are pessimistic: they feel they are scapegoated for social problems ("You're all fucking unreasonable!" exclaims one.) But improvements are being made. Sue Rahr, the director of Washington state's police academy, says that cops need to be taught how to talk to people again. "When you approach a situation like RoboCop, you're going to create hostility that wasn't there before". Since 2012, the state's training has emphasised that people can be persuaded to obey commands, not just forced to. Military-style drills have been ditched. Ms Rahr now serves on a task force created by Barack Obama to spread such ideas.

Sadly, as the Gainesville video shows, not every police force is catching on. And as Ms Rahr admits, if you try to recruit cops by telling them they are social workers, fewer may apply. At least part of the glamour of the job is the promise that you get the chance to use violence against bad people in a way that ordinary civilians never can, except in video games. ■

Terry Branstad

A fuel and your money

DES MOINES

Iowa's governor has a simple message to all presidential candidates

"THEY are jealous," says Terry Branstad, Iowa's Republican governor, of those who complain that Iowa wields too much influence over national politics, thanks to its hosting of the first presidential caucuses. Every presidential candidate shakes Iowan hands and listens to Iowan concerns. Hillary Clinton came on April 14th, and will be back about ten times before January, predicts Chad Hart at Iowa State University. Mr Branstad plans to use the presidential campaign as an opportunity to promote ethanol. He will urge candidates to support the federal renewable-fuel standard (RFS), which forces oil firms to blend ethanol into vehicle fuel.

Today over 95% of petrol sold in America is blended with 10% ethanol. Iowa is America's leading producer both of ethanol and of the corn (maize) from which it mostly derives. Nearly half the state's corn is turned into ethanol. Iowa's 43 ethanol plants account for nearly 30% of the nation's production. Around 73,000 jobs in the state depend on the ethanol industry.

Ethanol producers are delighted that Americans are forced to buy their product. But not everyone else is. Oil firms grumble that the mandate hurts their profits. Petrol-refiners complain that it raises their costs. Environmentalists say ethanol is of questionable value for the environment because of the pollution emitted during its production. Carmakers fret that ethanol can corrode petrol tanks that are not adapted to it. People who care about global poverty protest that burning corn in cars raises the price of food for everyone else (though a newer method that involves turning inedible corn stalks into fuel is less harmful).

Mr Branstad is undaunted. He wants Uncle Sam to require even more ethanol in fuel: 30% would be the ideal blend, in his view. Ethanol reduces America's dependence on foreign oil, he insists, although America is the world's largest oil- and gas-producer. Moreover, he says, ethanol costs less than regular petrol. "There is so much misinformation on ethanol," he sighs. "The further you go from the Midwest, the less informed people are."

Mr Branstad is especially keen to fight for ethanol this year, since midwestern farmers, especially maize-growers, expect much leaner years after a long boom. The Department of Agriculture forecasts that net farm income in America will be down by 32% this year, from $108 billion in 2014 to $73.6 billion (see chart).

Crop farmers face several headwinds. A glut is driving down prices for maize, soyabeans and other crops thanks to record harvests in the past couple of years—and another record harvest expected this year. Another problem is the low price of crude oil, which is making maize-derived ethanol a less attractive alternative source of energy (though it also reduces the cost of operating farming machinery). And lastly, the strong dollar is hurting farmers who export. (Iowans sell a lot of food to China.)

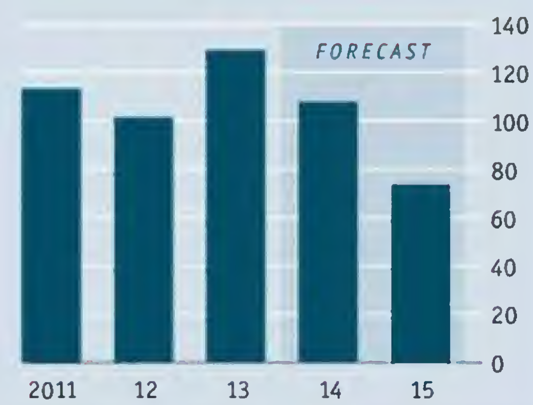
Livestock farmers benefit from lower crop prices, which mean cheaper animal feed. This softens the blow, since many arable farmers also raise cows, pigs or chickens. Still, firms that supply goods to farmers are scared. John Deere, a maker of tractors, has laid off more than 1,000 employees in Iowa since last August. CNH Industrial, another tractor-maker, is also making people redundant.

"Ethanol production saved lots of little towns in the Midwest from dying," says Richard Longworth, the author of a book on the region in the age of globalisation. Eddyville, a tiny town in south-east Iowa, was probably saved from extinction by a big Cargill plant that has made ethanol there since 1991. The biofuel is often seen as "a last roll of the dice for rural areas where nothing much good has happened for decades", says Mr Longworth.

Mr Branstad says that Iowans felt betrayed by Barack Obama when his administration proposed relaxing the renewable fuel standard a bit in 2013. (As a senator in Illinois, another big ethanol producer, Mr Obama was a strong supporter of the RFS.) In January the governor launched America's Renewable Future, a new pro-ethanol campaign group, headed by Eric Branstad, his son. Since a disproportionate number of senators either represent rural states or are planning to run for president, he should have little trouble getting his message across. Mrs Clinton voted several times against the RFS as a senator, but changed her mind when she first ran for president. She is thus welcome in Iowa. Governor Branstad advises her "to come early, and come often". ■

Lean years loom

Net farm income, $bn



Source: US Department of Agriculture

Disability lawsuits

Hobbling businesses

NEW YORK

A law designed to help people with disabilities enriches lawyers instead

THE Bikini Beach Hotel in Panama City Beach, Florida, serves sunbathers of all types. So John Gheesling, the owner, was surprised to be sued for violating the Americans with Disabilities Act (ADA). Apparently a visitor last August found the pool lacked a wheelchair lift, though the hotel keeps one available inside. "Never had anyone ask to use it," Mr Gheesling says. But fighting such lawsuits is tricky. He has already spent $8,000 in legal fees and there is no end in sight. As it happens, the same plaintiff sued nearly 50 other businesses along the state's Panhandle in the same month, and filed 529 ADA suits in Florida in 2014.

Signed into law in 1990, the ADA bars firms from discriminating against people with disabilities, whether they are employees or customers. Banks, shops, hotels and other "public accommodations" must remove barriers to the "full and equal enjoyment" of their goods and services. This guarantee may sound vague, but new technical standards from the Department of Justice, which went into effect in 2012, dictate everything from the slope of a ramp to the height of a bathroom basin. The regulations are well-meaning but confusing. The government enforces some of them, but mostly leaves it to people with disabilities to sue. Plaintiffs need not be customers, an appeals court decreed in 2013. And if they win, the defendant must pay their costs.

This has created a cottage industry of so-called Title III lawsuits against bars, motels and the like. More than 4,430 reached federal courts in 2014—a 63% rise in one year, according to new data from Seyfarth Shaw LLP, a law firm that defends businesses against ADA claims. Many more cases rattle around state courts; most end in a confidential settlement. The lion's share took place in California (where plaintiffs can sue for damages, too) and Florida (which has a high concentration both of lawyers and of frail elderly residents). The law's new standards, which include requirements for pools, help to explain some of this rise. More lawsuits may soon be on the way, as the Justice Department is expected to apply new ADA rules to websites in June. For example, each picture must have text describing it, so that screen-reader programmes can tell blind people what is there.

Some customers have legitimate claims. But most lawsuits involve a minor technicality, such as the height of a soap-dispenser or the width of a parking spot, which has little bearing on the accessibility of a business, says Martin Orlick, a property lawyer in San Francisco who specialises in ADA compliance. Because fighting in court can cost $30,000-60,000, businesses often prefer to pay a smaller sum to make a lawsuit go away.

There is evidence that lawyers explicitly target small businesses, which are more likely to pay up without a fight. In a tour of over 1,500 firms that had been hit with lawsuits in central California, Julie Griffiths of Citizens Against Lawsuit Abuse, an advocacy group, found mostly immigrant-owned family businesses earning between $50,000 and $80,000 a year. Settlements usually run to around $10,000 before anything is fixed. "I know guys who are on payment plans with some of these lawyers," Ms Griffiths says.

Some argue that lawsuits are the only way to ensure that businesses accommodate disabled people. Kevin Berry, an ADA-compliance advocate in south-west Florida, is not so sure. He finds that lawyers working with serial plaintiffs will file a bundle of "drive-by" lawsuits at once, slamming businesses with vaguely-worded grievances that leave many wondering what they have done wrong. Instead of explaining the problems, these lawyers often turn around and suggest a settlement. "They're in it for a quick buck," he says.

Few companies manage to follow all the rules, which are 252 pages long and very precise. But if there is a real problem Mr Berry, who uses a wheelchair, says he finds it easy to ask businesses to make changes. Most oblige. A customer is a customer. Nearly a fifth of Americans have some kind of disability, and they have an annual discretionary income of $200 billion. As spendthrift baby-boomers enter their golden years, these numbers are expected to rise. ■

Property rights

The California raisin grab

NEW YORK

A farmer asks the Supreme Court to let him keep his crop

MARVIN HORNE, a raisin grower in Fresno, California, is apparently the first family farmer to have his case accepted twice by America's Supreme Court. *Horne v US Department of Agriculture*, which the justices re-heard on April 22nd (having previously ruled that a lower court could not duck hearing it) challenges a rule dating back to 1937. The rule requires raisin farmers to hand over a share of their crop to the government, which may or may not pay for it.

For nearly three decades, Mr Horne and his wife Laura complied. But just over a decade ago they rebelled and were hit with fines of nearly $700,000. In 2003-04 they would have had to fork over 30% of their crop and receive nothing in return. To them, this looked like theft.

The Fifth Amendment requires the government to provide "just compensation" when it takes "private property...for public use". A lower court held that this only applies to such things as land and houses. Briefs from the Cato Institute, a libertarian think-tank, scoff that this argument "radically shrivels the right to own property" and "threatens to send [it] the way of the California Raisins [a group of singing dried fruit who are not as popular as they used to be]".

The government maintains that the programme is intended to help raisin farmers by curbing supply and stabilising prices. The Supreme Court seemed sceptical. When the deputy solicitor-general defended the raisin-seizures as being good for farmers, Justice Antonin Scalia turned on the sarcasm: "These plaintiffs are ingrates, right?"

The government pleaded that the rule was part of a "comprehensive regulatory programme". Similar policies prevailed in communist Russia, growled Mr Scalia. "Central planning was thought to work very well in 1937." Chief Justice John Roberts noted that the rule requires that "you come up with the truck and you get the shovels and you take their raisins, probably in the dark of night." If the court halts the raisin ransacking, it could affect other coercive farm programmes, too. A decision is expected in June.

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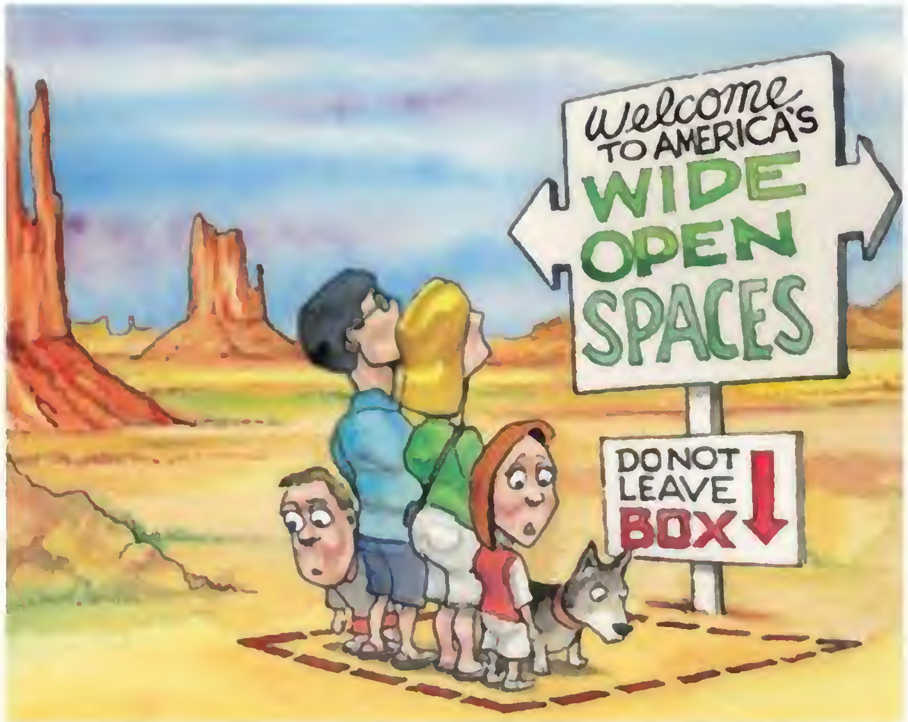
Lexington | The regulated West

For a place associated with unrestricted freedom, the desert West has a lot of rules



IN THE RV parks, along interstates and at the bottom of canyons in the desert West a distinctive species of American can be found. Lexington recently joined them, driving a trailer around Nevada, Utah and Arizona for ten days, a fine red dust forever between his toes. These folk come for the scenery and also for something else. This something is hard to define, but easy to picture: it is the feeling that comes from travelling down a straight, empty road, sand on either side and some improbable rock formation shimmering on the horizon. This looks like freedom but, since there is nowhere to turn off and nowhere to stop, it could just as well serve as a pictogram of its opposite. As more Americans move to the desert West, attracted by cheap housing, permanent sunshine and a taste for the sublime, this is sometimes how it seems.

Californians annoyed by the current restrictions on their use of water might consider themselves lucky: in Utah the collection of rainwater is always carefully regulated. Water rights are strictly enforced by the region's many water lawyers, who argue over precedent and interpretation in the University of Denver's *Water Law Review*. Land values turn on the water rights attached, laid down by individual claims (the earlier the better) and in the Colorado River Compact of 1922. Grazing rights on public land (which is most of the land in the inland West) are determined according to a federal formula that deals in "animal unit months" (one of which is the area that will feed a grazing cow and calf for a month). Hikers must stay on paths to avoid dislodging the soil crust that anchors the sand, preventing it from blowing up into the Rockies, melting the glaciers and draining the source that feeds Los Angeles and other places far downriver.

That so many of these rules are set by the federal government makes them all the more bothersome. In Moab, a town in Utah with an equal smattering of conservationists and Jeep-driving adventurers, this comes into focus. On April 28th Phil Lyman, an accountant from nearby Blanding, is due in court on criminal charges of conspiring against the United States for driving an all-terrain vehicle in the wrong place. Mr Lyman organised a protest drive against the federal Bureau of Land Management last year. Rose Chilcoat of Great Old Broads for Wilderness, a group of mostly female conservationists, says the riders dynamited bits of rock to make their path easier and tore up interesting archaeological sites. Mr Lyman disagrees. "It has been a road for all of recorded history," he says. "It's the road my great-grandfather took when he founded Blanding."

Mr Lyman has received support from four-wheeled protesters, waving flags and protesting that this is America. Farther north, in western Oregon, the Feds are locked in a dispute with two gold miners who claim mining rights dating back a century or so in an area where the federal government says they do not, in fact, have such rights. The miners have summoned a posse to defend their claim. A handful of armed Oath Keepers, a group consisting largely of retired law-enforcement officers who believe that the constitution must be defended from the federal government, usually with pistols, showed up in support. The federal government is hoping for heavy rain, which can discourage even the most committed constitutionalist.

Competition for land use is as old as the West, but for most of the time it has been between humans. Those who would do as they please now also find themselves in conflict with the greater sage-grouse, a rare and neurotic bird whose habitat is too easily disturbed. In Montana the animal competition is hairier. There the American Prairie Reserve, a charity, aims to set aside an area larger than Yellowstone National Park where wildlife can roam free. The reserve already has 480 bison, brought in from South Dakota and Canada, on 305,000 acres (123,000 hectares) of land. Its managers look forward to giving them the company of cougars and bears. "It was hard to make prairies sexy when you're competing with snow-capped mountains," says one. "But now we are reaching the sorts of donors who can fund wings of hospitals, football stadiums and art museums." For nearby cattle ranchers wishing to cash in, this is great news. For those who do not, the predators next door will make awkward neighbours.

Where the skies are blue

Though it may seem counter-intuitive, to live successfully in these wide open spaces requires lots of rules. The white settlers who crossed the plains in search of gold in 1849 were aware of this: as the wagon trains moved west they wrote and printed detailed constitutions to govern behaviour along the way. Western sheriffs "spent as much time riding swivel chairs behind rolltop desks as they did on horses leading posses", wrote Dee Brown, a historian of the West.

The federal government takes responsibility for many essential services in the desert. It burns thousands of acres to prevent bigger fires. It spends $70m each year rounding up wild horses whose population has grown unchecked—because of the political power wielded by the parents of horse-mad daughters—and corralling them in Kansas and Oklahoma. Add to this all the retirees moving to Phoenix and drawing Social Security cheques, and the result is a place that may think of itself as the home of rugged individualism but makes heavy use of the federal government.

The landscape may be the big draw, but Nevada is more urban than Massachusetts. (In the sense that a higher proportion of its inhabitants live in cities—the deserts around Las Vegas are somewhat less hospitable than Caesar's Palace.) Utah and Arizona are more urban than New York state. As more Americans move West to live in cities and go hiking, rafting or Jeep-ing at the weekend, the rules will multiply. The conflicts over land and water—which seem like a theme that ought to belong to America's past—will increase. And the West will become a bit less western. ■

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Rio's Olympics

Sobriety at the Carnival

RIO DE JANEIRO

Preparations for Brazil's games are going better than expected

EVER since Barcelona reinvented itself after its Olympic games in 1992, host cities have tried to repeat the success. Most have failed, managing little more than a big—and costly—bash. Eduardo Paes, the smooth-talking mayor of Rio de Janeiro, who will host the next games in August 2016 and oversees the bulk of the preparations, thinks he can do better. "Everybody knows Brazilians can throw a party," Mr Paes says. The Olympics will show they can also complete big projects "on time and on budget".

The claim will provoke derision, both among Brazilians and sports fans everywhere. These days the pollution in Guanabara Bay is so bad that Olympic sailors may have to dodge dead dogs. Many of the construction firms responsible for building the games' venues are caught up in the multi-billion-dollar scandal surrounding Petrobras, the state oil company (see page 63). The precedent of last summer's football World Cup is not encouraging. It cost Brazilian taxpayers 21.4 billion reais ($9 billion), a record sum for the competition. Popular anger about corruption and overspending on flashy projects sparked the biggest protests in Brazil for a generation.

Yet there are reasons to believe that Mr Paes's bullishness is not just the hype of an ambitious politician. One is that, while the federal government played the biggest role in putting on the *Copa*, the city of Rio has taken the lead in preparing for the Olympics. The mayor's Party of the Brazilian Democratic Movement (PMDB) is at the business-friendly end of the governing coalition in Brasília. Among the old-style politicians who dominate the party, he stands out as a moderniser (see Bello on next page). Mr Paes has coaxed private investors to pay two-thirds of the cost of stadiums through public-private partnerships.

Since the World Cup, Brazil has tightened controls on corruption. Lawyers at the Public Olympic Authority, the government co-ordinator, report that newly empowered federal auditors pester them constantly. Mr Paes promises an austerity games, without new stadiums like Beijing's "Bird's Nest". He is counting on the natural beauty of the *cidade maravilhosa* to wow visitors instead.

So far, the mayor's sober approach seems to be setting the tone. Thousands of workers in dust-caked orange overalls are toiling at the main sites in Barra da Tijuca in the west of the city and in Deodoro to the north; two smaller venues in the centre are also being spruced up. The Olympic Way, a boulevard in Barra inspired by Copacabana's sinuously tiled promenade, already runs for half its planned one-kilometre (0.6-mile) length. A year ago a vice-president of the International Olympic Committee called Rio's preparations "the worst I have experienced". Now the games' governing body seems relaxed. The federal auditor said last week that the tennis courts and the velodrome were behind schedule, but only by a month. Organisers say that construction has caught up since the inspectors came.

Compared with other recent Olympic games, Rio's look cheap. Brazil reckons it will cost 37.7 billion reais ($12.5 billion). That will cover operating costs and pay for sports venues, transport links, waste-treatment plants and the refurbishment of the rundown port district. The contribution of all three tiers of government will be 16.4 billion reais, much less than British taxpayers spent on London's Olympics in 2012. Standard and Poor's has rewarded Rio's parsimony with a credit rating which, unusually for a municipality, is a notch above that of Brazil itself. The budget for sports venues has jumped, from 4 billion reais to 6.6 billion. By Olympic standards, that is a modest rise.

If there is a "legacy" benefit to *Cariocas* (residents of Rio), it will be a vastly expanded system of public transport. This, according to the head of the Municipal Olympic Company, Joaquim Monteiro, will treble the share of workers who commute by public transport, to more than 60%. Meanwhile, the handball arena, planned as a permanent fixture, will be dismantled and reassembled into four schools. None of this means that the games will be worth the money spent on them (they rarely are). But the balance looks better than it might have done.

Plenty could still go wrong. Even if ▸▸

nothing does, the games' critics will say that their design is faulty. When over 50 tonnes of dead fish washed into Guanabara Bay last week, some blamed the untreated sewage that flows into the lagoon. Mr Paes is not responsible for that: sewage is the remit of the state of Rio de Janeiro, not the city. But that will be little consolation if organisers have to move the sailing and rowing events to somewhere cleaner. Mr Monteiro says the bay is "60% clean", and that by the time the games begin "sailors will be able to dive in, with no problems".

Human-rights groups complain that hundreds of families have been resettled to make way for Olympic infrastructure without adequate consultation. Crime is a worry. After early success, a community-policing scheme to "pacify" the *favelas*, Rio's shantytowns, has stalled. The Petrobras scandal has so far not affected work on the Olympics, but it could. One construction company involved in the scandal defaulted on some of its debt in January.

Orlando Santos of Rio's Federal University points out that most Olympics-related money is being invested in prosperous Barra da Tijuca, home to just 300,000 of Rio's 6m citizens. That, he fears, will exacerbate inequality, which is already high. If Rio must host such an event, he says, it should focus spending on a poorer district, as London did in the East End.

But with less than 500 days before the games begin, Rio seems to be preparing for them with the unflashy competence that Mr Paes espouses. They should provide a modest economic stimulus to a region that is especially vulnerable to the downturn in the oil sector. If all continues to go well, the mayor, whose term in office expires after the games next year, will no doubt pursue higher office. And sailors will race within sight of the Sugar Loaf and the Corcovado mountains. ■

Bello | The ghost in the Planalto

Dilma Rousseff is in office but no longer in power

"DILMA Out, PT out," rang the angry chants up and down São Paulo's Avenida Paulista on a blazing Sunday afternoon on April 12th. They were echoed in towns and cities across Brazil. Yet the demonstrators have already won more than they realise. Less than four months into her second term, President Dilma Rousseff remains in office but for many practical purposes is no longer in power. And the nominally ruling left-wing Workers Party (PT) no longer calls the shots in Brasília, the capital.

Even Ms Rousseff's tenancy in the Planalto palace is not wholly certain. Thanks to the inflammatory combination of a deteriorating economy and a massive corruption scandal at Petrobras, the state oil company, she is now deeply unpopular. The demonstrators want her impeached, as do 63% of respondents to one recent poll. This week the opposition was receiving legal opinions as to whether she can be impeached, over Petrobras or for violating a fiscal-responsibility law that is supposed to prevent the spending splurge she arranged to get re-elected.

It is an extraordinary comedown. For 12 years the PT dominated Brazil's politics, thanks to the social policies and rapport with ordinary people of Luiz Inácio Lula da Silva, the president in 2003-10, as well as to windfall growth from a commodity boom that has now ended. Ms Rousseff lacks Lula's political skills, and their relations are now barely cordial. But still-rising living standards were just enough to win her a second term last October.

Two things have eroded her authority since then. First, the mistakes of her first term have taken Brazil to the brink of a serious recession. Facing the loss of the country's prized investment-grade credit rating (which would raise the cost of borrowing for firms and households), she appointed Joaquim Levy, a Chicago-trained fiscal hawk, as her finance minister. He is busy cancelling subsidies and cutting handouts—austerity that is anathema to the PT. Ms Rousseff no longer micromanages the economy.

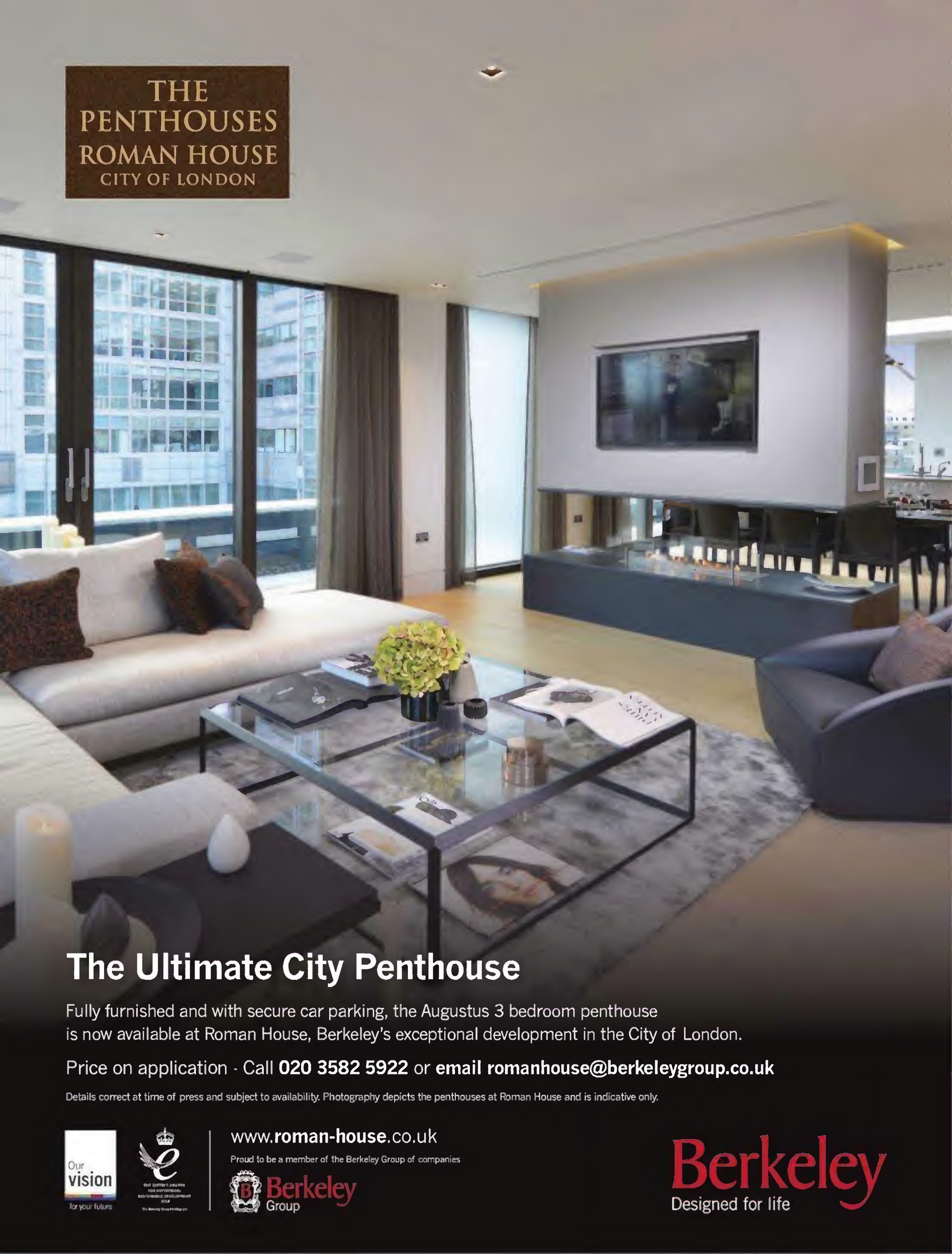
Nor does she command the political agenda. She has lost control of Congress to the Party of the Brazilian Democratic Movement (PMDB), a centrist agglomeration of regional political barons that is the PT's main coalition partner. The PMDB long complained that the PT hogged the main ministries. Now it has exacted its revenge. Eduardo Cunha, a crafty conservative congressman from Rio de Janeiro, crushed the PT candidate to win for the PMDB the powerful post of Speaker of the lower house. The hyperactive Mr Cunha is pursuing his own agenda. He has claimed the scalps of four ministers in his ten weeks in office, and has jibbed at some of Mr Levy's fiscal measures. His acolytes call him "prime minister".

To ease this friction, this month Ms Rousseff fired the PT minister for political co-ordination, handing the job to Michel Temer, her vice-president and the PMDB's titular leader, and with it the prized power to appoint second-tier officials.

What makes this haemorrhaging of presidential power so dramatic is that Ms Rousseff still has almost four more years in office. In that time the economy will surely get worse before it gets better. Can she survive? Over the past six decades Brazil has seen four different ways in which presidents failed to complete their terms. One president committed suicide. Another resigned. A third was ousted by a military coup, while a fourth was impeached.

Thankfully, it is hard to imagine suicide or a coup. It is also hard to see Ms Rousseff, a tough former urban guerrilla who survived torture, resigning. And Brazilian law holds that a president can be impeached only for political or common crimes committed during her current term of office—though whether that rule would necessarily exempt any malfeasance during her first term is not clear. So far nothing ties Ms Rousseff to corruption; some would like fiscal irresponsibility to be impeachable, but probably it is not. It is for Mr Cunha to decide whether to start impeachment, and he is one of 52 politicians being investigated over alleged illegal donations from Petrobras.

Fernando Henrique Cardoso, a former president who remains the opposition's intellectual leader, has cautioned that impeachment would be "rashness". That sounds right. The social movements behind the protests would do better to spend the next three years promoting political reform, pressing for justice to be done in the Petrobras scandal and reinventing a largely moribund opposition. As for the almost friendless Ms Rousseff, she faces a long and dispiriting grind to try to regain the power she has lost. Does she have the fortitude for that?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Informal workers in Buenos Aires

Of recyclers and rag men

BUENOS AIRES

Some who make their living on the streets are luckier than others

AFTER Argentina's economy crashed in 2001, the ranks of informal workers grew along with those of the unemployed. In Buenos Aires, the capital, destitute citizens picked through rubbish to collect anything worth recycling, sold crafts on the pavement, charged drivers to "protect" their parked vehicles and cleaned car windscreens at red lights. Although the economy is now stronger, the scavengers and car-watchers have not gone away. But they have met with very different fates.

In 2013 the local government conferred formal status on *cartoneros*, workers who comb the city for cardboard and plastic which they sell to recyclers. It recognised 12 of the co-operatives into which they are organised and provided them with uniforms, health plans and cash incentives on top of their earnings from selling rubbish. "With the monthly bonus I can afford things for my family now that I couldn't before," says Gabriel Aquino as he loads plastic bottles into a battered pickup. "And I'm actually around to see them, because there are set hours."

Other groups are seen as nuisances and are being dealt with brusquely. None is more despised than *trapitos*, or "rag men". They wave people into parking spots and solicit fees for keeping cars safe. Hugo, a *trapito* who works in the chic Palermo Soho shopping district, says he never demands payment. If he spots people who look like thieves cruising the area on motorcycles, he alerts the police.

Yet he admits that not all *trapitos* are as scrupulous as he is. Some have damaged cars or even assaulted people who do not pay them. "They are intimidating people into paying to use a public space," fumes Carmen Polledo, a councilwoman who belongs to the PRO, the party led by the city's mayor, Mauricio Macri (a probable candidate in October's presidential election).

Another target is street merchants who operate outside areas set aside for them. Their number has increased fourfold since 2011, according to a report by two chambers of commerce. Nearly 13,000 illegal stalls sell 678m pesos-worth ($77m) of goods a month. Unlike *trapitos*, they provide a service people want. It is their rent-paying competitors who dislike them.

To date the government has had little success clearing scofflaw workers off the streets. Mr Macri, whose party lacks a majority in the city council, has failed in three attempts to pass a bill that would make it easier for police to arrest *trapitos*. On April 10th he re-introduced the measure yet again. Police operations to evict unlicensed merchants have provoked violent clashes and traffic blockades. In 2012 a judge issued an injunction allowing artisans to sell their wares on a three-block stretch of Peru Street, directly behind Mr Macri's office.

Cartoneros, meanwhile, are setting their sights higher. Though conditions have improved, Jacquelina Flores of the Movement for Excluded Workers complains that the government has not replaced the co-operatives' ageing fleet of lorries or adjusted the monthly bonus by enough to compensate for inflation, which was 40% in 2014. Scores protested outside the city's environment ministry in March. The government has opened talks with them. Whatever the outcome, Buenos Aires's *cartoneros* have already learned that formality pays. ■

Elections in Cuba

Fine, as long as we win

But in a big municipal poll, the losers also have something to celebrate

THE most interesting thing about Cuba's municipal elections on April 19th was not who won. It was who lost, and who did not even turn up.

Four months after a historic rapprochement between Cuba and the United States, for the first time two openly declared dissidents made it onto the ballot among more than 27,000 candidates competing for 12,589 municipal posts around the country. Predictably, they were defeated. But their participation was an unusually open act of defiance, not just by the two men but also by ordinary citizens who proposed them in a show of hands before the elections.

What is more, the turnout on voting day fell by almost six percentage points compared with the previous poll in 2012, to about 88%. Some claimed rising absenteeism was a crack in monolithic support for the Communist Party.

The opposition candidates, Hildebrando Chaviano, a lawyer and journalist, and Yuniel López, a member of the unauthorised Independent and Democratic Cuba party, were labelled as "counter-revolutionaries" in official publicity. On his party's website, Mr López claims that voters were pressured not to vote for him. Yet both candidates quickly conceded defeat. "The vote was clean. The people don't want change. They still want revolution," Mr Chaviano said.

The elections have an air of futility about them. The winning candidates are rewarded with a thankless job. They face a barrage of complaints from residents about crumbling housing and poor public services, without having the power or money to do much about them. But voters know that if they do not show up, it is likely to count against them—in university applications, for instance.

All the same, many did not. Alina Balseiro, head of Cuba's National Electoral Commission, said the drop in turnout reflected the absence of tens of thousands of Cubans who had gone abroad as a result of Cuba's relaxation of travel restrictions. But Yoani Sánchez, a dissident Cuban blogger, said that 1.7m potential voters did not appear, or they cast void or defaced ballots. This "demonstrated that support for the government is not as unanimous as it claims."

Such dissidence comes at a delicate time for Raúl Castro, Cuba's president. In September huge crowds will gather for the visit of Pope Francis, whose office helped arrange the thaw in relations with the United States. This could further heighten expectations of change.

Yet the Castro government may also feel that elections can be a useful outlet—so long as the ruling party continues to win. Eusebio Mujal-Leon, of Georgetown University in Washington, says it may be learning a warped version of democracy from its socialist ally in Venezuela, convincing itself that it can remain an autocracy while using elections to stay in power. The road ahead for Cuba's nascent opposition is not an easy one.

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Japan and the United States

Base issues

NAHA

A bilateral alliance that has served well for decades needs a makeover

DEMONSTRATIONS in Japan are generally ultra-polite affairs, and those in the southern island prefecture of Okinawa contain more than their share of greying residents who would normally abhor physical confrontation. Yet since the start of the year protests to stop construction work on a new airstrip for American marines at Henoko, a pristine beach on Okinawa's main island, have grown heated.

On land, scuffles have broken out as security personnel remove protesters ever more forcefully. On the water, coastguard crews in rigid inflatables keep away protesters in kayaks who are trying to stop the drilling for the airstrip's foundations. The island's governor, Takeshi Onaga, was swept to office in December vowing to oppose Henoko. He recently ordered construction to stop because of the environmental damage. In Tokyo the government of Shinzo Abe swiftly overruled him.

Okinawan concerns about Henoko are heartfelt. But Mr Abe and his colleagues will countenance neither discussion nor a change of course. When the prime minister travels to Washington, DC, at the end of this month, both the Americans and the Japanese will try to sweep the long-running irritant in their relationship out of view. Okinawa, with nearly one-fifth of its land taken up by American bases, is a powerful symbol of that relationship. Neither side wishes any weakening of their close military ties. In fact, both want the alliance to adapt to long-running challenges, such as North Korea, and to new ones, above all the rise of China. In Washington Mr Abe will find an eager audience for his vision of a Japan less shackled by its war-renouncing (and American-imposed) constitution.

America's military presence in Okinawa is central to that vision. The island, says Gavan McCormack of the Australian National University, is the "war state" to complement Japan's "peace state". Okinawans have reason to grumble about that. Their main island has borne a disproportionate share of America's security presence in Japan ever since the second world war. Perhaps 120,000 Okinawans, or over a quarter of the population, were killed in the "typhoon of steel", as the Battle of Okinawa was called, many forced by Japanese commanders to commit suicide.

But having liberated Okinawa, the Americans stayed. Three-fifths of America's 49,000 forces in Japan are stationed on the island, even though it accounts for just 0.6% of Japan's land mass. There are accidents and crimes, including rapes. Some 80% of Okinawans surveyed say that the bases, and much else about their lives, are not understood by other Japanese, for many of whom the American presence is invisible. Mr Abe would leave them to grumble: massing the bases on Okinawa leaves the rest of the country untroubled by a debate about burden-sharing.

The deferential national press ignores the growing acrimony on the island. Officials in Tokyo are contemptuous of Okinawans: the islanders are grasping, because for decades they have pocketed government money in return for American forces being based on their island; and short-sighted, even downright treasonous, because opposition to America's military presence in Okinawa endangers Japan's security and its alliance with America at a time when North Korea is developing nuclear-tipped missiles and China is rapidly expanding its military capability.

In Washington both Mr Abe and President Barack Obama would prefer to celebrate the way in which an alliance lasting more than six decades—by far America's most important military alliance in the region—has underwritten peace and prosperity in East Asia (see Banyan). And Mr Abe will emphasise how Japan's trade and security policies are being overhauled and re-energised to face new challenges.

Japan appears to be finalising bilateral negotiations with America to join a new free-trade arrangement known as the Trans-Pacific Partnership, which involves a dozen countries and a third of world trade. Mr Abe will be cheered by legislation introduced by Congress which, if passed, will give the president "fast-track" negotiating authority on such deals.

As for security, at the time of the Soviet threat Japan could freeride on America's defence guarantees while pursuing economic development. Those days are long gone. Though constrained by a pacifist constitution and a defence budget of just 1% of GDP, Mr Abe will lay out his strategy for Japan to do much more to bolster its own defence, reinforce the bilateral alliance and build closer security ties in the region with, among others, Australia, India, the Philippines and Singapore. China will gripe, but America will be pleased. It is all part of Japan's new "proactive contribution to peace", as Mr Abe will emphasise when he addresses a joint session of Con- ▸▸

gress on April 29th.

That a Japanese prime minister is being granted such an honour for the first time is striking. Presidents of South Korea, America's smaller ally in East Asia, have addressed a joint session six times. It is in part a reflection of past trade frictions with Japan—as well as initial distrust of Mr Abe for his dubious views on Japan's wartime history. But these days the Washington establishment likes Mr Abe, the most confident Japanese leader in years—and one who, unlike Yukio Hatoyama when he held the job in 2009-10, does not question the key tenets of the alliance. Mr Hatoyama was ostracised in Washington after suggesting that the presence of American bases in Okinawa should be reconsidered; the discord ultimately led to his downfall. In Washington Mr Abe will blithely insist that the base relocation is on course. And with Mr Obama he will sign a new agreement on defence co-operation, the first update since 1997.

In Japan's heavily dynastic politics, policy can be inherited. Mr Abe's own desire to update the alliance has a family dimension. It was his grandfather, Nobusuke Kishi, who pushed through a revised security treaty in 1960. That has defined the alliance ever since. Mr Abe recalls sitting on his grandfather's knee when crowds of left-wing students laid siege to the prime minister's residence in protest. But then the motives for updating the alliance did not stem from a desire to be seen to be pandering to America—often a default mode among Japanese prime ministers.

And neither do they today. Indeed Mr Abe is probably among those in Tokyo who do not always trust Mr Obama's assurances of an American "pivot" or "rebalancing" (the administration's preferred term) towards Asia. The American president's own defence budget is under pressure, and he is distracted by the Middle East. Japanese officials see China upsetting the established regional order by, for example, challenging Japan's control of the Senkaku islands (known as the Diaoyu islands in China) and building airstrips on disputed reefs in the South China Sea. They believe that America's supremacy in East Asia can no longer be taken for granted—nor, perhaps, even its commitment to the region. That is why, in the words of one senior Japanese diplomat: "We need to play our own part in ensuring the pivot is not a sort of one-off, short-term policy."

Best friends forever

Japan is revising its joint-defence guidelines with America to foster "seamless and effective" co-ordination between the two countries' armed forces in areas such as logistics, intelligence, missile defence and cyber-warfare. This summer it is also pushing legislation through the Diet (parliament) that will radically change what its army, known as the Self-Defence Force, is allowed to do. The new rules would legitimise collective self-defence, allowing the armed forces to come to the aid of allies, America in particular, in situations that have nothing to do with rebuffing direct attacks on its own territory.

At present, if an American naval ship comes under attack in international waters a Japanese maritime self-defence vessel may not help it by opening fire on the aggressor. Japan and America want that to change, and want to abandon the idea of narrowly defined "non-combat" zones to which Japanese forces have to restrict operations if they are deployed outside Japan. (Japanese policymakers still smart at Australian troops having had to defend unarmed Japanese ones in Iraq in 2004.)

Debate rages within the ruling coalition over how far such changes should go. Komeito, the pacifist coalition partner of Mr Abe's Liberal Democratic Party (LDP), is cautious about overseas deployments. Some in the LDP want the Japanese navy to patrol with South-East Asian countries, Australia and India to counter Chinese assertiveness and guard sea lanes as far as the Strait of Hormuz. Mr Abe, at the time of the beheading of two Japanese nationals by Islamic State in Syria earlier this year, seemed openly to regret that Japan did not have a military mandate to retaliate.

An infantilised embrace

Mr Abe's passions, however, go beyond bolstering security. He is fervent about Japan becoming what some call a more "normal" country—that is, one shorn of externally imposed constraints on autonomy in foreign and even domestic spheres. Although hardly anti-American (not even the protesting Okinawans are that), he often speaks of wanting to overturn what he calls the "post-war regime" and of bringing about the "rebirth of Japan".

By this he does not mean weakening the American embrace. He is suggesting frustration with the supposed domination for much of the post-war era of left-wingers (teachers, in particular) who have, as he sees it, played up Japan's war guilt and undermined any sense of national pride. Japan, Mr Abe insists, must project a strong image, in part by boosting patriotism and even harking back to an imperial idyll. His fondness for the militaristic Yasukuni shrine should be seen in this context. On April 21st he sent it a gift of a potted tree, angering China and South Korea. The Americans wish Mr Abe would avoid such gestures, but do not berate him much for them. He will be careful to say the right things in Congress about Japan's mistreatment of American prisoners-of-war and even the bombing of Pearl Harbour.

There is much that is odd about Mr Abe's views of the post-war era, above all the notion of a left-wing conspiracy. American tutelage gave rise to a right-wing political and bureaucratic establishment, with the LDP at its heart, that has dominated Japan almost without a break since. Mr Abe himself is a chief product of that. Yet his obsessions point to underlying realities both sides have been reluctant to acknowledge.

The first is that the alliance with America has always been an odd and unequal one, with a proudly pacifist state sheltering under America's nuclear umbrella. America has always insisted on strategic control of Japan, mainly through Okinawa. Even after it handed control of Japan back to the Japanese in 1952, it made an exception of Okinawa, which it kept under military control for another two decades. Then it insisted on keeping the bases.

During the cold war, the alliance was a comfort blanket for Japan's leaders. But today heightened regional uncertainties, especially the rise of China, are fuelling the resurgence of nationalism, including Mr Abe's. It is unhelpful that the protective na-

ture of the alliance has given Japan too little cause to form deep and constructive relationships with neighbours and former enemies—one reason for its difficulty in dealing with China and South Korea today. "Cocooned by our big brother," says an Abe adviser, "the Japanese ceased thinking strategically about their own future."

Another consequence—a domestic politics that is unresponsive to people's wishes—is nowhere more evident than in the fate of Okinawa. Once an island kingdom balanced precariously between Japan and China, it has drawn the short straw ever since Japan's annexation of it in the 1870s. Okinawans, says Kurayoshi Takara, a historian and recent vice-governor of Okinawa, suffer from a double occupation: both America's and Japan's. But, though "talk of neocolonialism describes the situation, it doesn't promise the solution." ■

Thai politics

A baby-sitters' charter

BANGKOK

Thailand takes a big constitutional step backwards

THE junta that has ruled Thailand since a coup last May says it will hand back power only after it has healed political and social rifts that make democracy unworkable. On April 26th its placemen in a "reform" committee are due to finish debating the first full version of a planned new constitution intended to do just that. The charter, supposedly inspired by Germany's electoral system, must receive royal assent by September if promised polls are to take place by the middle of next year. But it will not heal Thailand's deep political wounds. Instead, it may well aggravate them.

Leaked on April 17th, a text of the charter confirmed rumours that had already been circulating. Its first objective appears to be to neuter Pheu Thai, a populist party hated by the establishment, but which has won every election since 2001 under various guises. By beefing up a system of proportional representation, the charter will make it difficult for any party to win a parliamentary majority. It would thus force endless coalitions between Pheu Thai and other parties—even its nemesis, the pro-establishment Democrat Party. It would also allow for an unelected prime minister, should no legislator earn enough support.

The constitution will probably also see the lower house pushed around by an enlarged and more powerful senate. Not much more than one-third of the senators will be elected, down from half at present (and only candidates vetted by the establishment will be allowed to stand). Ten or so other institutions will help to baby-sit the politicians, including a "National Moral Assembly" which will punish those who act unethically, a catch-all term that could be used against government critics. Three-quarters of the 120 seats in a new "National Reform Assembly" will be reserved for toadies now serving in one of the junta's various conclaves. Their job will be to prevent any future government deviating from a legislative programme that the generals are now laying down.

The planned constitution—Thailand's 20th since 1932—marks a sharp retreat from the liberal charter adopted in 1997, which had already been hobbled by amendments made by another military government eight years ago. It will allow the army to keep control until a royal succession after the ageing king's death, and probably for long after. One clause appears to limit more explicitly the king's ability to intervene in future bouts of political unrest, perhaps for fear that the next monarch will prove soft on enemies of the royalist establishment such as Thaksin Shinawatra, the fugitive former prime minister who dominates Pheu Thai from exile.

A few months remain before the document becomes law. Optimists note that the army has watered down some egregious early proposals in response to public complaints. But only cosmetic changes are now likely. Hopes for a referendum are also low. For all the talk of democracy, the army is growing more autocratic as its difficulties mount: it lifted martial law on March 31st, but replaced it with a decree that grants the coup-maker turned prime minister, Prayuth Chan-ocha, even greater power. The officials penning the new constitution say they hope it will guard against "parliamentary dictatorship". But they are peddling another type of tyranny. ■

Literacy in India

A bolly good read

India tries a cheap and cheerful way of teaching people to read

MILLIONS of Indians watch Bollywood movies for the broken hearts, lost fortunes, dishy actors and catchy tunes. But beyond mere escapism, such fare may have a role to play in fighting illiteracy. Between 1991 and 2011 India's official literacy rate rose from 52% to 74%. But about 400m of those counted as literate are only barely so. Bollywood, with its powerful pull among the least-educated, may help the many who can read only simple words.

Brij Kothari of PlanetRead, an NGO, believes that "same-language subtitling"—providing subtitles for the lyrics of catchy Bollywood songs—offers valuable reading practice. Fans keen to mimic their screen idols are drawn to the written versions as they scroll by. The repetitive verses offer a chance to practise more complex words. Children learn well when a ball bounces along the words on screen. Adults generally prefer the words to be highlighted as they are sung.

Mr Kothari says the idea came to him when he tried to improve his rudimentary Spanish by watching films in the language, and found himself wishing they came with Spanish subtitles. Students of Chinese will know how useful this can be. Since dialect-speaking viewers may struggle with spoken Mandarin but understand the written form, many films are subtitled in Chinese characters.

Since the mid-1990s, PlanetRead has subtitled songs in a range of Indian languages. Some are broadcast by Doordarshan, the state broadcaster, in a weekly hour-long programme. Two years ago Zee Talkies, the biggest private film channel in Maharashtra state (of which Bollywood's home, Mumbai, is the capital) began subtitling songs in ten prime-time movies each week. Bollywood songs with subtitles are now estimated to reach 150m-200m Indian viewers each week.

A high proportion are women, 65% of whom in India are classified as literate even though many have poor reading skills. Bollywood's allure among women helps overcome the difficulty of persuading those in rural areas to attend classes away from home. Among children, too, the effect is pronounced. A study by Nielsen, a research firm, found that only a quarter of Indian children become good readers at school. When exposed to just 30 minutes of subtitled film-songs a week, that proportion doubles.

The power of song

Sri Lanka

Frittered and frazzled

COLOMBO

The new government has wasted its first 100 days

THE date should have been one to celebrate: April 23rd was the hundredth day since Maithripala Sirisena formed a government after winning a fraught presidential election, in January, as the head of a broad coalition of parties. The surprising victory was rightly feted as a democratic triumph. It ended nearly ten years of authoritarian, nepotistic rule by Mahinda Rajapaksa, the man who in 2009 inflicted a military defeat on Tamil Tiger rebels. Mr Sirisena had promised, however, to build a "new country" in his first hundred days. He has a long way to go.

The change of government offered a chance to face up to Sri Lanka's bloody past, including atrocities during the war with the rebels. Optimists said that public institutions could again become accountable and that waste and corruption could be cut. But to achieve this, Mr Sirisena would have to wield real authority. He has not. Mr Rajapaksa's previous ruling coalition boasted a two-thirds majority in the 225-seat Parliament. The new administration has only managed to cobble together diverse and disloyal groups.

Divisions within the coalition have prevented the government fulfilling its grand promises for its early months. Mr Sirisena has fallen short on pledges to pass a right-to-information bill, to amend the constitution to trim the powers of (on paper, in Mr Sirisena's case) an overweening presidency, and to form independent commissions to run elections, appoint judges and oversee the police. A constitutional amendment was drafted, but the Supreme Court said changing the president's powers required a two-thirds parliamentary majority, plus public support in the form of a referendum. Rather than attempt the impossible, the government diluted the bill. Even so, it has got nowhere.

Mr Rajapaksa, meanwhile, has not faded away. His morale is high, lifted by queues of fawning fans who visit his village home. Many are provided with transport to his increasingly frequent public events. The media give him plenty of attention. His extended family still wields clout, despite the arrest by financial police on April 22nd of Basil Rajapaksa, one of his brothers, who used to be in charge of the economy. On April 21st legislators handed a petition to Parliament's Speaker. Signed by 113 of them, it demanded the resignation of an official from an anti-bribery commission who had dared to summon the former president to give evidence. The petition carried a symbolic message: it would take only as many MPs to bring an impeachment motion against Mr Sirisena, should they wish to. The Speaker would probably not object if they did so: he is another brother of Mr Rajapaksa. "Even though we are in government, it's as if we are in the opposition," a deputy minister says.

Mahinda Rajapaksa, still in the game

Aides say Mr Sirisena's main concern has been to try to gain the trust of his own Sri Lanka Freedom Party, which was led until January by Mr Rajapaksa. Speculation is mounting that he may call fresh elections to try to strengthen his parliamentary support. He had promised to go to the polls once the first 100 days were up. That is one pledge on which he can deliver. ■

Nuclear power in Japan

Legal fallout

NIIGATA

Court cases frustrate efforts to restart Japan's nuclear plants

THE world's biggest nuclear power plant runs along nearly 4 kilometres (2½ miles) of the coast of the Sea of Japan. At full pelt it generates enough electricity to supply 2.7m households. But the seven reactors at the Kashiwazaki-Kariwa complex sit idle, along with the rest of Japan's nuclear-power facilities. Four years after meltdown at the Fukushima Dai-ichi power plant, all Japan's 48 usable reactors are the focus of safety concerns. An industry that once produced nearly a third of Japan's electricity remains paralysed.

The government badly wants some of the idle reactors put back to work to cut a huge bill for imported fuel. On April 22nd it got a shot in the arm when a court on Kyushu, the third-largest of Japan's four main islands, rejected an attempt to block the restart of two reactors at the Sendai plant. It said the reactors were safe to operate, despite active earthquake faults and a volcano in the area. Kyushu Electric, the plant's owner, believes it could be generating power again by July.

Yet the ruling contrasted with another one handed down a week earlier by a court in Fukui prefecture, down the coast from the Kashiwazaki-Kariwa plant. That decision blocked Kansai Electric Power from restarting two reactors at its Takahama site. It said stricter government-induced regulations after the Fukushima disaster were no guarantee that another disaster could be prevented. The court warned of "imminent danger" to local citizens if the reactors were restarted.

The decision surprised the government. It is formulating a new energy plan that calls for nuclear power to meet up to 20% of Japan's electricity needs by 2030. The Fukui ruling will not derail that, the chief cabinet secretary, Yoshihide Suga, insists. He says the new regulations are among the world's strictest.

Such confidence in restarting the reactors may be misplaced. Every one of them is the subject of a lawsuit by locals trying to stop them from being fired up again. The government and the energy utilities will continue to argue that although they cannot completely rule out another accident, they have made nuclear power as safe as possible. By rejecting that argument, the Fukui court has set a precedent other courts may follow, says Mutsuyoshi Nishimura, a former climate-change negotiator.

Kansai Electric has challenged the Fukui ruling. Experts say the company will very likely get a higher court to overturn it. But the longer legal tussles drag on, the older the reactors become, putting their eventual operation in doubt. The Nuclear Regulation Authority (NRA), Japan's new watchdog, is reviewing about 20 reactors for compliance with its regulations. Luc Oursel, the late chief executive of Areva, a French nuclear giant, predicted in 2013 that two-thirds of Japan's plants would eventually restart. Few believe that now.

For Tokyo Electric Power (TEPCO), the operator of the ruined Fukushima plant, these issues are a matter of life and death. Kashiwazaki-Kariwa is its only remaining viable nuclear facility. The company says it loses ¥100 billion ($835m) per reactor every year that the reactors are down. The plant's chief, Tadayuki Yokomura, says that TEPCO has poured $2 billion into reinforcing the facility against earthquakes and tsunamis. There is, he insists, no reason why all seven reactors cannot be restarted immediately. The problem is that he has yet to convince the public of that. ■

Banyan | Forty years on

The strategic order in place in Asia since the Vietnam war is being challenged

AT THE time, the events in Indochina of April and May 1975 seemed to mark in the starkest way the end of a period of unchallenged American hegemony in Asia and the Pacific. Cambodia fell to the brutal Khmers Rouges, South Vietnam was absorbed by the North and communists took power in Laos. Famous pictures of an evacuation by helicopter from the American embassy roof in Saigon (now Ho Chi Minh City) captured the apocalyptic mood: the humbling of the superpower, in bedraggled retreat from Asia. Yet, 40 years later, as Vietnam marks the anniversary of unification, America's defeat in Vietnam looks in retrospect no more than a blip in a prolonged Pax Americana. Only now is the durability of the American-led regional order being seriously questioned.

Jonathan Schell, an American journalist who covered the Vietnam war, wrote that what had led America to enter and expand it was not over-optimism about its chances of victory, but "overly pessimistic assessments of the consequences of losing". These entailed not just the tumbling of other Asian "dominoes" to the communist menace, but a catastrophic loss of American prestige and credibility. Indeed, for a while after the war America did seem in global retreat. Jimmy Carter, elected president the following year, oversaw what Lee Kuan Yew, Singapore's late patriarch, called in his memoirs "four years of pious musings about America's malaise", during which Iran's revolution and the Soviet invasion of Afghanistan further dented America's standing.

It soon turned out, however, that Mr Carter's predecessor, Gerald Ford, had been right in a speech he made on April 23rd 1975 in which he said that events in Indochina "tragic as they are, portend neither the end of the world nor of America's leadership in the world." Communism did not advance beyond Indochina to elsewhere in Asia. And by then, partly in response to the quagmire in Vietnam, America had already tilted towards China with Richard Nixon's visit in 1972. This softened the strategic impact of the humiliations three years later.

A de facto alliance with China against the Soviet Union left America's supremacy in Asia uncontested. After the war, the region boomed. American intervention in Vietnam no longer looked such an unmitigated disaster. Lee Kuan Yew portrayed it almost as a triumph: without it, South-East Asia would probably have fallen to the communists. America bought the region time and, by 1975, its countries were "in better shape" to stand up to them. The prosperous emerging-market economies they have become "were nurtured during the Vietnam war years".

The greatest beneficiary of the new global alignment was China itself, which embarked in 1979 on its great economic transformation, against the backdrop of a stable region secured by America's unchallenged primacy. China has done so well out of this arrangement that many Americans struggle to understand that it might want to challenge and to change it. But growing numbers of analysts now believe that it does: that its goal is to supplant America as the Asia-Pacific's—and eventually the world's—leading power. Hugh White, an Australian writer on strategic affairs, argues that China is achieving by totally different means under its current leader, Xi Jinping, what it failed to attain under Mao Zedong: wealth, power and a dominant role in its own region.

Most American strategic thinkers have tended until recently to argue that China can be accommodated in the existing world order; and that even if it harbours greater ambitions, it is so far behind America in economic and military terms that it will set them aside for the foreseeable future. A more alarmist school of thought is gaining strength, however. A new report for the Council on Foreign Relations, an American think-tank, by two analysts who have worked in government, Ashley Tellis and Robert Blackwill, calls for a new "grand strategy" for dealing with China, including strengthening America's army and stepping up military co-operation with its allies. It argues that "the American effort to 'integrate' China into the liberal international order has now generated new threats to US primacy in Asia—and could eventually result in a consequential challenge to American power globally." In a similar vein, Michael Pillsbury, another former American government official, has published a book with a self-explanatory title: "The Hundred-Year Marathon: China's Secret Strategy to Replace America as the Global Superpower".

The American administration itself seems to be adopting a harder line towards China. It has always denied that its "pivot" or "rebalancing" towards Asia was aimed at China's containment. But it was certainly intended to reassure its friends and allies in the region that it was not simply going to stage a strategic withdrawal to make way for a rising China. And it is becoming more open in its rivalry. Recently it tried in vain to persuade its allies to shun a Chinese-led development bank. To garner support for its ambitious trade agreement, the Trans-Pacific Partnership, it has stressed how the deal is essential if America is to prevent China from writing the rules for the region.

Full circle

China, for its part, constantly suspects America of trying to contain it; and it argues that the alliances that tie America to Asia, notably its defence treaty with Japan, are cold-war relics that should be dismantled. None of the allies wants that; and none wants to be forced to choose between its security ties with America and its links with China. But, if the pessimists are right, they may one day find they have to. As Mr White sees it, America's experience in the Vietnam war is an "Aesop's fable of the perils of statecraft". America, having fought in Vietnam to stop China building a sphere of influence that excluded it, was driven by the war into opening to China and has since facilitated China's rise—and that rise has been so successful that China now threatens to build a sphere of influence that excludes America. ■

Also in this section

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Waste disposal

Keep the fires burning

HANGZHOU

Waste incinerators rile the public, but are much better than landfill

ONE Saturday last May, thousands of people near the affluent lakeside city of Hangzhou clashed violently with police during a protest over a planned waste incinerator. The demonstrators feared it would pollute the air in their bucolic district outside the city centre. They burned patrol cars and caused enough mayhem to force the government to delay construction. A few days ago, work on the facility quietly began. Police, both in uniform and plainclothes, were posted on the road into town to discourage troublemakers.

Such security in China is often a symptom of the government's intolerance of dissent. In this case, however, it also may have had a positive effect, by giving the environment a much-needed break. As China urbanises, its cities are producing a lot more rubbish. They are running out of good places for landfills and are turning instead to burning rubbish, generating electricity at "waste-to-energy" plants like the one in Hangzhou. About 70 such incinerators are now being built, in addition to more than 180 in operation. Cities increased their capacity to incinerate waste tenfold in the decade to 2013 (see chart), allowing the country to burn more than a quarter of its formally collected urban rubbish. Techsci Research, a consultancy, expects the market for incinerators in China roughly to double in size by 2018, much faster than the pace worldwide.

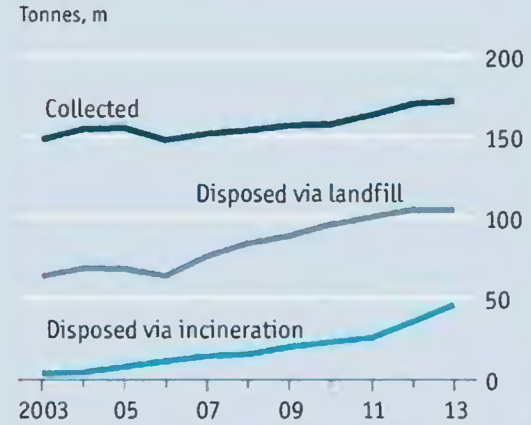
Cities in Japan and several European countries burn a higher proportion of their rubbish and recycle a lot of the rest (although only Japan ranks ahead of China in tonnes burned per day). Most rubbish in China ends up either in landfills or in unregulated heaps outside cities, where it gives off methane as it decomposes. There is a lot of informal recycling: people pick through rubbish at dumps looking for items such as plastic bottles that can be sold to recycling factories (see picture). But the heaps contaminate the soil and groundwater. Plastics flow down rivers into the sea, harming ocean life. A recent study concluded that China was by far the biggest source of plastics in the oceans.

More recycling would help. But encouraging households and local governments to co-operate in this will take time. For now, incinerating more trash is the best solution. Doug Woodring of the Ocean Recovery Alliance, a charity, says waste should still be sifted for recyclable materials before being burned. But China needs more incinerators, he says (as long as they are "very clean" ones). Building them will require the government to do more to earn the trust of a public that is rightly suspicious of official pledges to protect the environment. Some older incinerators have not burned as cleanly as promised, belching foul-smelling smoke from their furnaces.

Burning up

China's city rubbish

Tonnes, m



Source: CEInet, NBS

The latest generation of incinerators in China may help to overcome public scepticism. Shanghai is the city producing the most household rubbish in the country: 22,000 tonnes a day. Space for new landfills is becoming scarce as existing ones reach capacity, including China's largest, Laogang, on the coast near the city. Each day about a seventh of the city's rubbish glides past that landfill by barge to be dumped into two large pits at an incinerator next door. In odourless rooms overlooking each pit, workers use joysticks to manipulate gigantic German-made steel claws a bit like the ones in fairground games used to retrieve sweets and toys. The claws descend and close their jaws, grabbing seven or eight tonnes at each go. The workers then move them up towards the pit's high ceiling and drop the waste into furnaces built with technology from Germany, Japan and elsewhere.

The waste burns at temperatures of 850°C or higher, hot enough to eliminate toxic dioxin pollutants. The gases heat water to produce steam, in turn driving turbines that generate electricity. On a recent visit to the site, there was no detectable odour outside. Digital displays monitored emission levels of sulphur dioxide, carbon monoxide and other pollutants. Zhang Yi, ▸▸

a senior manager at SMI Environment, a local state-owned enterprise that runs the Laogang furnaces, says its facilities were built to "the strictest standard" in the world. A high proportion of imported technology and a need for careful operation make SMI's incinerators expensive to build and operate, Mr Zhang says. State-owned companies, he insists, have a special responsibility to the public.

Normally this sort of claim makes Chinese citizens scoff. Many of the factories and mills that have polluted rivers or made skies smoggy are state-owned. Their dismal record is one reason why residents near environmentally sensitive projects are often quick to anger when they hear about them. Environmental-impact assessments must be done, but these are paid for by the people who are building and approving the projects. Favourable assessments lead to more work and unfavourable ones to less. Neighbours of a planned project are often consulted in a desultory way, despite legal requirements for notices and hearings. The more controversial a project is, the less likely that rules about public consultation will be obeyed, and the more likely that nastier tactics, including hired thugs, will be relied upon to silence critics.

Mr Zhang says that failures to work openly with the public help explain "mass incidents" like the one in Hangzhou, as well as many other smaller protests. But most incinerators have not faced large-scale opposition—surprisingly, given how big the new ones are. In recent years large protests have led to the delay or cancellation of several projects to build factories to make paraxylene, which is used in polyester. An explosion at one such plant in Fujian province earlier this month reinforced distrust of such facilities, despite government efforts to persuade the public that they pose no great threat.

The Laogang incinerator is one of several that burn 3,000 tonnes of rubbish a day, including one in Beijing; the one in Hangzhou will be another. A planned new burner, to be completed in 2017, would make the Laogang facility the largest in the world, burning 9,000 tonnes a day. The goal by then is to increase the share of Shanghai's household waste that is incinerated from about a third to three-quarters.

Nationally, China's planners had wanted 35% of urban household waste to be incinerated by the end of 2015. That goal may not quite be met, partly because officials are becoming more sensitive to public complaints. After the protests in Hangzhou, officials transferred control of the project from a local state company to a national one, China Everbright International, which is one of the largest builders of incinerators in China. Local officials then arranged thousands of visits by residents to other China Everbright incinerators in nearby cities, according to Chen Xiaoping, the company's chief executive. He says the government made "tremendous and painstaking efforts" to restart the project.

When completed, the incinerator will need proper upkeep; a poorly run one is worse for the environment than none at all. Even then there is another potential drawback. Incinerators are insatiable beasts and must keep being fed rubbish for decades to be economical. The more of them there are, the less incentive there is to recycle, and to produce less rubbish in the first place. But at present, as China's waste problem keeps growing, the country most certainly needs to keep on burning. ■

Hong Kong politics

X marks the spot

HONG KONG

A struggle looms in Hong Kong's legislature over political reform

AFTER pro-democracy protests in Hong Kong late last year that blocked several main streets for weeks, neither the territory's leaders nor their backers in Beijing are in any mood to make concessions. On April 22nd the Hong Kong government revealed how it would like to conduct elections in 2017 for the territory's chief executive, as the most senior official is known. The proposal faithfully echoed the views of mainland Communist Party officials, whose disdain for a free vote had triggered the recent unrest. For the first time, Hong Kong residents will all be allowed to cast a vote for their leader. But the only candidates will be ones approved by a committee stacked with the party's supporters.

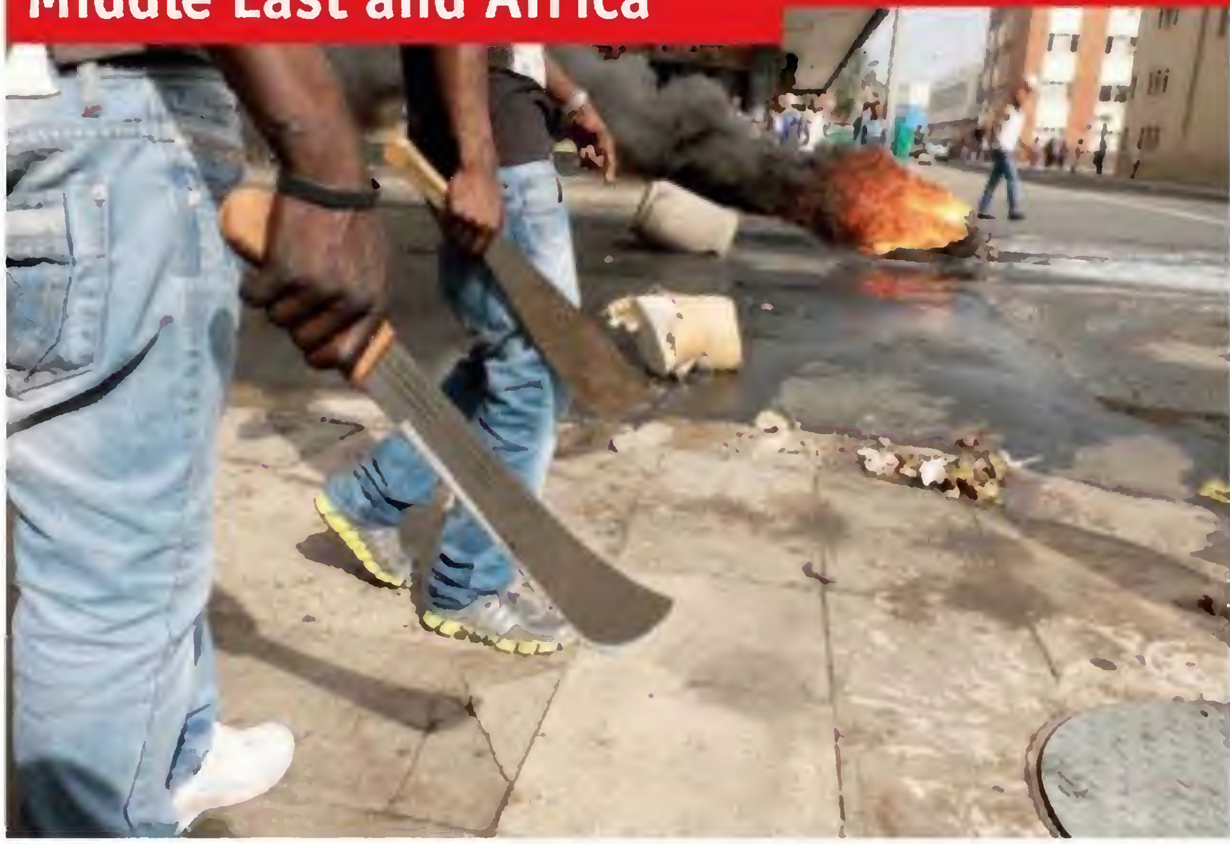
Pro-democracy legislators were quick to show their contempt for the government's plan. Most of them walked out of the Legislative Council (Legco) when the proposals were announced. The politicians left placards with yellow "X" symbols (see picture): yellow being the adoptive colour of last year's protests and "X" signifying their intention to vote against the proposals when they are submitted for approval, probably in mid-June. Some carried umbrellas, another symbol of the recent unrest. The current chief executive, Leung Chun-ying, has warned that if they do reject the plan, the next chief executive will be chosen by the same method as last time, which involved no public vote at all.

Missing faces

Senior government officials have prepared a publicity blitz in an effort to sway opinion in their favour. Pro-democracy protesters have threatened to disrupt the officials' public appearances. Opinion polls show the public is divided. Some polls say that about 60% of respondents want Legco to adopt the government's proposals. Others say a similar proportion believes that rejecting the plan would be fine. Albert Ho, a Democratic Party legislator, has pledged to step down after the vote in order to trigger a by-election that he would like to turn into, in effect, a referendum on the package. It is far from clear whether he would succeed in securing a convincing show of public support for his cause.

But the real struggle will be in Legco, where the government has to win over four legislators in order to prevent a veto by the 27-strong pro-democracy bloc (the proposals need the support of two-thirds of Legco's 70 members to pass). Many pan-democrats, as the bloc's members are commonly known, insist that the public be allowed to nominate candidates. As Hong Kong officials keep noting, the government in Beijing has ruled this out. The pan-democrats also object to the government's proposal that those who make it onto the final shortlist of candidates would need the support of half of the 1,200 members of the electoral committee. That would all but rule out the inclusion of pro-democracy candidates: most of the committee's members are establishment figures who would take their cue from officials in Beijing.

Despite their stated resolve to stand united against the proposals, the pan-democrats will face considerable pressure in the coming weeks. Officials' warnings that political reform will be frozen if the measures fail to pass will give some of them pause. It would mean that reforms in the election of Legco members, which officials have said may be introduced in 2020, would also be shelved (and in any case it remains unclear what these would involve). The government will try assiduously to court pan-democrat waverers. It worries about failing to carry out the Communist Party's wishes, which are for the creation of a new political model: "universal suffrage", under the party's firm control. ■



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Xenophobia in South Africa

Blood at the end of the rainbow

JOHANNESBURG

South Africa's poor are turning on those who are even more downtrodden

A STREET vendor from Mozambique, Emmanuel Sithole, lay begging for his life in a gutter as four men beat him and stabbed him in the heart with a long knife. Images of his murder have shaken South Africa, already reeling from a wave of attacks on foreigners, mostly poor migrants from the rest of Africa. Soldiers were deployed on April 21st to Alexandra, a Johannesburg township, and other flashpoints to quell the violence, though only after seven people had been killed. Thousands of fearful foreigners, many from Malawi, Mozambique and Zimbabwe, have sought refuge in makeshift camps. Others have returned home.

South Africa has experienced such horrors before. During widespread anti-foreign violence in 2008, 62 people were killed and some 100,000 displaced. Photographs of the murder of another Mozambican man, Ernesto Nhamuave, whom a jeering mob burned alive in a squatter camp, led to declarations that such atrocities would never happen again. Yet no one was charged in Mr Nhamuave's death: the case was closed after a cursory police investigation apparently turned up no witnesses (who were easily found by journalists earlier this year). The latest violence flared up in the Durban area earlier this month after King Goodwill Zwelithini, the traditional leader of the Zulus, reportedly compared foreigners to lice and said that they should pack up and leave.

His comments poured fuel on an already-smouldering fire. Jean Pierre Misago, a researcher at the African Centre for Migration and Society in Johannesburg, estimates that at least 350 foreigners have been killed in xenophobic violence since 2008. But Mr Misago says he has heard of only one conviction for murder. Attacks on foreigners and foreign-run businesses have been committed with virtual impunity; few cases ever make it to court. "Migrant lives are low-value lives," says Marc Gbaffou, chairman of the African Diaspora Forum in Johannesburg.

So it is progress that four men have been arrested in connection with Mr Sithole's murder. The police have been praised for responding better to the violence this time. Yet the attacks on foreigners will continue until the government acts decisively to stamp out the xenophobic attitudes that permeate South Africa, from the townships to the country's top echelons.

When, after an outcry, King Zwelithini held an anti-xenophobia *imbizo*, or assembly, in a Durban stadium, some of the audience booed African ambassadors and religious leaders, chanted that foreigners should leave, and waved spears, axes and clubs. Meanwhile President Jacob Zuma, who has made only an emotionless plea to halt the violence, blamed journalists for publicising the death of Mr Sithole. "This makes us look bad," he said. His eldest son, Edward (born in Swaziland), agreed foreigners should leave, saying that "we are sitting on a ticking time-bomb of them taking over the country."

Such comments find a receptive audience. There is anger among poor South Africans at the lack of opportunities and change in the country, with frustrations often boiling over into violent street protests. Officially, unemployment runs at 24%, though the real figure is much higher, with more than half of under-25-year-olds out of work. Foreigners are an easy scapegoat, especially Somalis and Pakistanis resented for running successful small shops in the townships. The last census, in 2011, found 2.3m foreign-born people living in South Africa, though the number is probably higher. Some think there are as many as 5m-6m foreigners in a country of 54m.

The government's response has often been to describe incidents as "criminality" rather than admit to a specific problem with violence against foreigners. Recent policies have, moreover, fostered a negative view of foreigners, such as the debate over proposals to prevent them from buying land. South Africa's Institute of Race Relations, a liberal think-tank, points to the "absolute failure" of government policy to deal with unemployment and with deficiencies in the education system. It warns that xenophobic attacks may well increase as the economy weakens.

Across Africa, there have been boycotts of South African musicians, and demonstrations at South African embassies. South African lorries were stoned at a border crossing and Sasol, a petrochemicals firm, suspended some of its operations in central Mozambique and repatriated South African staff for fear of retaliatory attacks. Desmond Tutu, a former archbishop of Cape Town and an anti-apartheid stalwart, captured the mood of many: "Our rainbow nation that so filled the world with hope is being reduced to a grubby shadow of itself. The fabric of the nation is splitting." ■

Technology in Africa

The pioneering continent

NAKURU, KENYA

Innovation is increasingly local

ARE small cargo drones the answer to some of Africa's most pressing problems? A group of European engineers supported by IBM thinks so. Christened "flying donkeys" and now in development, the drones will carry 10kg (22 pounds) of cargo each over distances of up to 120km (75 miles) to supply medicine to remote communities or food to refugees. They are designed to be cheap and rugged enough to deploy across the continent, and could perhaps serve as a proving ground for retailers like Amazon that are unable to experiment as freely in the rich world because of strict regulations. Test flights are planned in Africa for later this year. The continent is regarded as an ideal arena because its airspace is not congested, and because poor roads mean that demand for cheap air cargo is immense.

Experiments such as this underscore a remarkable change taking place in Africa. A continent that has long accepted technological hand-me-downs from the West is increasingly innovating for itself. To be sure, much of this is made possible by technological advances elsewhere. Mobile phones are common today in even the most remote African villages. Ericsson, a technology company, estimates that the number of mobiles will rise to 930m by 2019, almost one per African. The spread of smartphones, some of which now cost as little as $25, is likely to push internet penetration to 50% within a decade.

This is now allowing Africans to go beyond merely copying technology used elsewhere or adapting it to fit African circumstances. In some cases, firms are generating innovations that can also be used in rich countries. Mobile money is the best example. A technology that long struggled to gain a foothold in the West (though mobile payments now seem to be taking off after the introduction of Apple Pay) has transformed economies in places such as Kenya, where millions of unbanked people have been brought into the financial system. This in turn has spurred yet another wave of innovation.

Firms are using mobile money to sell life-insurance policies, some to people with infections such as HIV. Phones not only reduce the cost of collecting small premiums but also allow insurers to remind customers to take their medicine. Another innovator is Olam, a Singapore-listed farm-commodity firm. It has signed up 30,000 farmers in Tanzania as suppliers of coffee, cotton and cocoa through a mobile-phone system, boosting profitability for all.

New technologies could also make a great difference in education. Although firms around the world are developing smartphone and iPad apps to teach children to read, write and do sums, these innovations promise to have a far greater impact in Africa, where education systems are weak and children often have to walk long distances or pay prohibitive fees to attend school.

Apps and e-learning schools are no match for the best state or private ones, but only a tiny elite has access to those. Compared with the run-of-the-mill schools that most Africans attend, they look impressive. The main advantage of using technology to teach is that it reduces the impact of two common failings in many ordinary schools in Africa: teacher absenteeism and minimal adherence to the curriculum. Among the firms embracing such innovation is Bridge International Academies, partly funded by Pearson, co-owner of *The Economist*. It has more than 100,000 nursery and primary pupils in Kenya, paying about $5 a month to attend low-cost schools that use technology to follow standardised curriculums.

Technology companies are also having an impact on African societies by transforming the media. The 300,000 residents of the Kenyan city of Nakuru have never had their own newspaper, relying instead on word of mouth for local news. That changed last year when a news website, HiviSasa (meaning "Right Now"), started publishing 30 reports a day on fires, murders, school graduations, hospital improvements and much else that few people outside Nakuru would care about. On March 13th its headline read, "Teacher rescued from 45-feet toilet".

Self-improvement

Innovation in Africa is helped by a peculiar confluence of economic and political circumstances. Regulation is generally light thanks to weak governance; engineers can try things out that are either prohibited or prohibitively bureaucratic elsewhere. It is also buoyed by the paucity of traditional infrastructure, whether roads or landlines, meaning that new technologies or business models face few established competitors.

This business environment has attracted a growing number of Western companies to Africa. Microsoft is funding a small firm that is developing wide-area Wi-Fi systems able to cover entire regions at less than a hundredth of the cost of existing mobile telephony. It uses unallocated frequencies, including ones previously reserved for television that are being freed up as broadcasters move to digital transmissions that use less bandwidth. The intention is to bring the same model to rural communities in the West.

Technology is opening up African markets that have long been closed or did not previously exist, says Jim Forster, one of the early engineers at Cisco, a maker of network gear, and now an angel investor. Facebook has joined up with phone operators to make internet connectivity available free through an initiative known as internet.org, hoping to sign up Africans to its site before indigenous social media get to them. Launched in Africa last year, it has since been expanded to poor countries on other continents. Of all Western technology firms, IBM is perhaps the keenest on Africa. Virginia Rometty, the head, visits regularly and talks of "great, great innovation" coming out of the continent.

Africa's innovation revolution is still in its infancy. But it is likely to gain pace, not least because new models and forms of financing start-ups are also being developed. Take EmergingCrowd, a London-based crowdfunding firm that was launched this week. It aims to match investors with companies in emerging markets, predominantly in Africa. One of the first firms to raise money on it is Bozza, a market for African music and film producers who would otherwise struggle sell their work. "The problems Africa faces are not necessarily American or European problems," says Emma Kaye, its founder. "The solutions are likely to come out of Africa." ■

Al-Qaeda in the Arabian Peninsula

An exceptional franchise

CAIRO

The jihadists gain ground in Yemen

IT HAS been a rough decade for al-Qaeda. America and its regional allies assassinated its top leaders from Yemen to Iraq, and made it harder for the group's branches to communicate with the central leadership. In 2011 America killed Osama bin Laden, its chief. Since Islamic State (IS) emerged a year later it has outflanked al-Qaeda, attracting more foreign fighters, cash and headlines. But one branch is an exception. Al-Qaeda in the Arabian Peninsula (AQAP), based in Yemen, is on the up. In the past month or so it has widened the territory under its control, including a port and an airport.

Today's war in Yemen between the Houthi rebels and the government, backed by a Saudi-led coalition, is helping AQAP. It expanded after the ousting of Ali Abdullah Saleh from the presidency in 2012, only to be pushed back by an army offensive. But the government's gains have now been reversed. On April 2nd AQAP freed members of its group from a prison. It took Mukalla, a port on the Gulf of Aden, and its nearby airport. American drone attacks, which previously kept AQAP on the back foot, have almost stopped since the Americans pulled out their intelligence-gathering special forces in the past few weeks.

Wherever it is based, AQAP's main target remains the "far enemy" in America and Europe. It has not been able to carry out a big attack like 9/11, and few think any al-Qaeda branch could do so again, since the West has become more vigilant. But AQAP claimed the shooting at *Charlie Hebdo* in Paris in January. Though the group is unlikely to have been involved in the nitty-gritty of planning, at least one of the two gunmen had trained in Yemen. AQAP has had more success in hitting sites in the region, including embassies and tankers. In 2009 it narrowly failed to assassinate Muhammad bin Nayef, Saudi Arabia's interior minister. More worryingly, it retains sophisticated bomb-making skills.

Nasser al-Wuhayshi, AQAP's head, is the deputy leader of the whole organisation. Young and sparky, he and his group remain more popular among jihadists than Ayman Zawahiri, al-Qaeda central's ageing chief. As IS is pushed back by the American-led coalition, al-Qaeda may come back into its own. Though a group calling itself IS carried out two bombings this year in Sana'a, Yemen's capital, IS has no recognised branch in Yemen. "AQAP is still seen as potent," says Bruce Riedel, a former CIA man now at Brookings, a think-tank in Washington. America recently increased its reward for information leading to Mr Wuhayshi's arrest to $10m. That matches the bounty for IS's chief, Abu Bakr al-Baghdadi, the world's foremost terrorist.

Saudi Arabia and Yemen

Stop-start

CAIRO

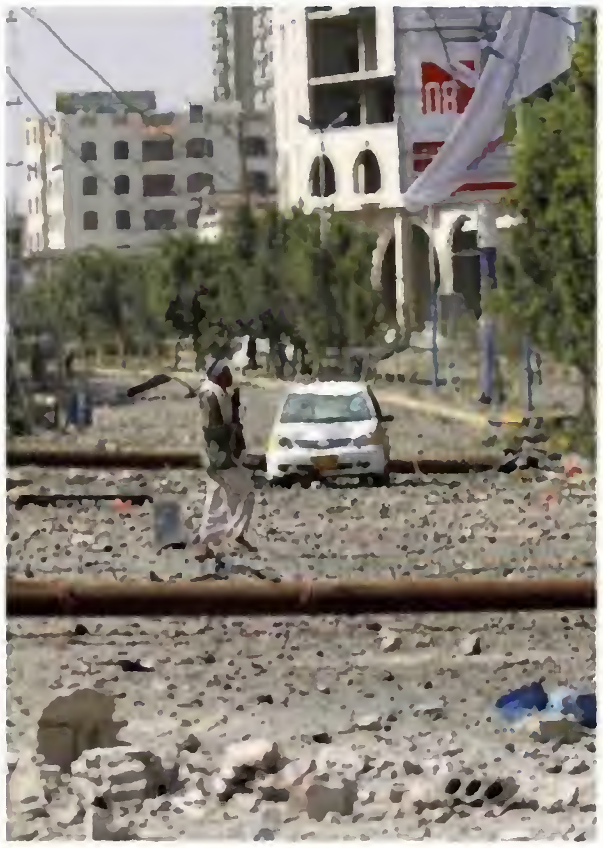
What can the kingdom do next?

BY WADING into the war in Yemen, Saudi Arabia may well have made matters worse. Tension with its regional rival, Iran, has deepened. Saudi aircraft are said to have killed up to 400 civilians and destroyed scores of buildings. So most Yemenis—and Arabs across the region—sighed with relief when the Saudis said on April 21st that they would end their air strikes. Yet they reserved the right to continue, albeit on a more limited scale. The next day their jets hit a force of Houthis, members of Yemen's Iran-backed Shia sect, who were fighting for an army base near Taiz, the benighted country's third city.

The Saudis' claim that their aims had been achieved rang hollow. They may have destroyed many of the Houthis' heavy weapons. They see a victory in the UN Security Council's resolution that puts an embargo on arms to the Houthis. But they are no nearer to stopping the advance of the Houthis alongside factions loyal to Ali Abdullah Saleh, the long-serving president, who was ousted in 2012. Nor are the Saudis able to reinstall their unpopular protégé, Abd Rabbo Mansour Hadi, who replaced Mr Saleh but who is in exile in the Saudi capital, Riyadh.

There are rumours of a secret deal between Saudi Arabia and Iran to stop the Saudi air raids on Sana'a, Yemen's capital, which the Houthis captured last year, in exchange for letting the strikes continue in parts of the south, for instance in Taiz, where Sunnis are in the majority. Iran was quick to praise the end of Saudi air attacks.

America appears to have played its part, too, with President Barack Obama leaning on King Salman to ease up. The Americans, along with Arab members of the Saudi-led coalition, are afraid of the



Caught in the middle

war spinning out of control. Along with civilian deaths in the Saudi air raids, much of Yemen's decrepit infrastructure, including the health service, has collapsed. Humanitarian agencies say the Saudi-led operation has blocked aid. Oblivious to the unfolding humanitarian crisis, Prince Alwaleed bin Talal, a billionaire member of the royal family, made a tin-eared offer. He said he would donate 100 Bentley cars, giving one to each of the Saudi fighter pilots participating in the campaign.

Yet Saudi policy is hard to predict. It is driven not only by its rulers' dislike of Iran and by a sense that Yemen is the kingdom's backyard. Salman, who acceded only in January, is also acutely aware that the war's outcome will affect his own standing and that of his favoured son, Muhammad, who some say is being positioned for a bid, in due course, for the succession. He already holds two powerful posts, as chief of the royal court and as defence minister.

America has sent a second warship off Yemen's shores, supposedly to protect shipping lanes but more likely to deter Iranian ships from delivering arms to the Houthis. This may reassure the Saudis that, even if they stop bombing from the air, the Houthis will not be able to replenish their supply of arms from Iran by sea.

The Houthis still control Sana'a, and Mr Hadi's allies have pledged to battle on. So the fighting is likely to continue. Many Yemenis fear that the Saudis will now finance Sunni proxies.

So Yemen's chaos is likely to continue, whatever the Saudis do. The Houthis' demands for a major say in any government of national unity seem unlikely to be met by their Saudi-backed opponents. Many southerners want secession. And al-Qaeda controls an expanding slice of territory in the south and east (see above). ■

Israeli politics

All together now

JERUSALEM

Winning the election was easy. Governing is the challenge

LITTLE more than a month ago Binyamin Netanyahu resoundingly won a fourth term in Israel's elections. On the face of it, his path to a new coalition was straightforward: he could have formed a stable right-wing government, or even a unity government with the defeated Labour party. But Israel's political fragmentation, and Mr Netanyahu's own divisive campaign tactics, mean he is struggling to form a government. On April 20th he was forced to ask President Reuven Rivlin for a two-week extension of his coalition negotiations.

Armed with the endorsements of five parties, apart from his own Likud, he has the basis for a government supported by 67 Knesset members—a relatively stable majority. All broadly share a right-wing perspective and there should have been relatively few problems in agreeing on the new government's policies. Yet wrangles over coalition agreements are proving fractious: Habayit Hayehudi is demanding more ministers than its parliamentary size warrants, and Avigdor Lieberman, leader of the much-reduced Yisrael Beiteinu, insists on remaining foreign minister. Likud insiders are predicting that Mr Netanyahu will be happy to leave Mr Lieberman, his former chief of staff, in opposition. That would mean forming a coalition with only 61 MKs, the tiniest of majorities. Such an outcome would give every backbencher inordinate power over the prime minister and signal a coalition with a short lifespan, even by the standards of Israeli politics.

Mr Netanyahu would much prefer to invite Labour into government. Not only would that broaden his new administration's parliamentary base, it would also allow him to appoint the Labour leader, Yitzhak Herzog, as the new foreign minister, to project a moderate face to an increasingly hostile world. But Mr Netanyahu's campaign offended many on the left—he recanted on his commitment to the establishment of a Palestinian state and scaremongered over the votes of Arab citizens. He also promised not to form a coalition with Labour, since there was "an ideological chasm" between it and Likud.

Mr Herzog has, since the election, repeatedly said that Labour is heading for opposition, though he has not categorically ruled out a coalition. On Saturday he created yet another loophole by saying, "We will not sit in this right-wing government." But of course, everyone knows there are other potential governments. ■

The Gaza Strip

As bleak as ever

GAZA

Nine months after the latest war, recovery is a distant prospect

NOT one of the 19,000 homes in Gaza destroyed during last summer's war with Israel has been rebuilt. Six months after would-be donors pledged to raise $3.5 billion, the situation is bleak. Barely a quarter of the promised cash has arrived (see chart). Around 100,000 of Gaza's 1.8m people remain homeless after families spent a rainy winter in tents, trailers and amid the rubble.

The main reason is that Israel's government lets Gazans import only a fraction of the cement they need, arguing that it can be used for military purposes—and for building tunnels. So what little Gazans get is on the black market. "It's like cement is a radioactive material," says Naji Yusuf Sarhan, Gaza's deputy minister of housing.

The UN is supervising the flow of material. Just one tightly controlled crossing from Israel into Gaza allows commercial goods. Only a tenth of the 5m tonnes of materials required has so far been let in, says the UN. At this rate, it would take 20 years to rebuild the territory, says Mr Sarhan. To buy on the black market you need a lot of cash. Most Gazans are poor. Half have no job.

Omar Fayyad worries that his four-storey house in Beit Hanoun, a town on the northern edge of the strip, may collapse and bury his family. An Israeli shell landed next door, so the columns supporting it are buckling. "We've received nothing: no money, no materials, no cement, no iron, nothing," he says. He has rigged up a pulley system to clear the debris, moving slabs of concrete and twisted metal into a sewage-filled pit nearby, hoping to sell the material.

Israel has blockaded Gaza since 2007, when Hamas, the Palestinians' Islamist movement, took over after winning an election and violently forcing out its rival, the nationalist Fatah group. More recently Egypt's government, which in 2013 ousted a short-lived Islamist one at home that was friendly to Hamas, has imposed even tighter restrictions. This year the main crossing between Gaza and Egypt, at Rafah, has been open for just five days.

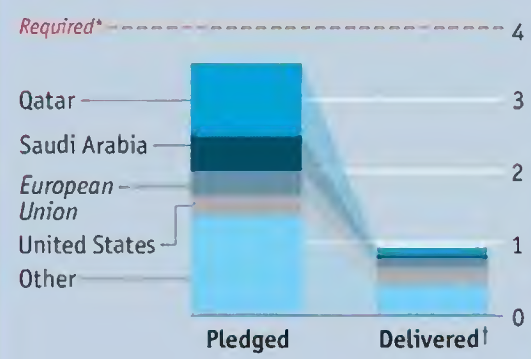
Robert Serry, the UN's outgoing envoy to the Palestinian territories, has proposed a five-year truce to provide for Israel's siege to be lifted if Hamas disavows violence. Not everyone likes the idea. "It's like morphine to pacify the people," says Khaled al-Batsh of Islamic Jihad, which is even more militant than Hamas. But a senior Hamas man says Mr Serry's idea is being considered. Three wars in six years have not helped Hamas, except by showing Israelis that Hamas cannot be wished away.

If a truce were to hold, Hamas would first have to settle its differences with Fatah. The two groups agreed on a unity government last April, but it never really got going. Hamas still controls security forces in Gaza, whereas the Palestinian Authority, which is dominated by Fatah and administers the West Bank, the bigger part of a would-be Palestinian state, refuses to pay salaries for civil servants in Gaza. Rami Hamdallah, the Palestinian prime minister, has made only three brief trips there since June, accomplishing little.

A recent downpour flooded Gaza's roads and makeshift shelters. Traders in the market in Shati, a crowded waterfront refugee camp, idle over cups of tea. Customers are few. Many shopkeepers earn too little to pay the rent. To provide food for a family is a big achievement, says Abu Rizzaq, a baker. "It's all we can hope for. There is no future."

Come on, cough up

Funds to reconstruct Gaza, $bn, from:



Source: World Bank

*Estimate according to the National Early Recovery and Reconstruction Plan for Gaza †April 15th 2015

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France and labour-market reforms

François Hollande's Rhine journey

PARIS

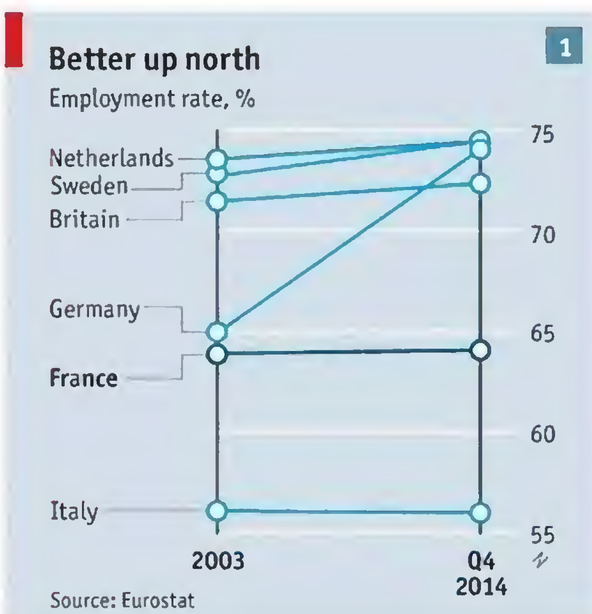
The French president tries belatedly to catch up with other more competitive countries. But his efforts may amount to too little, too late

IN NOVEMBER 2003, France and Germany teamed up to bust the euro's stability-pact rules for budget deficits that they had agreed to six years earlier. For three years neither Jacques Chirac of France nor Gerhard Schröder of Germany respected the deficit cap of 3% of GDP. Neither suffered sanctions. But Germany used its fiscal space to become more competitive and loosen its labour market. France, which had just introduced the 35-hour working week, mainly made matters worse.

Now, under François Hollande, France is once more breaching the deficit rules and has, yet again, been given more time to bring its deficit below 3%. The unwritten deal is that this time it will make a proper stab at reform, especially of its labour market. France's labour code, a fat red doorstop of a book, runs to 3,809 pages, 45% longer than ten years ago. The collective-bargaining agreement for hairdressers alone covers 196 pages. "The key challenge", concludes a recent survey of France by the OECD, a Paris-based think-tank, "is to reform the labour market to promote job growth." Yet is this likely?

The contrasting record on jobs across the Rhine is compelling. In 2001 unemployment in France and Germany was comparable, at just under 8%. Today it is below 5% in Germany, but over 10% in France. Although France and Germany have similarly high productivity per hour worked, the French start work later and stop earlier. Too many French youngsters leave school with no qualifications and drift for years on the fringes. The share of young people not in education, employment or training is 19% in France, almost twice that in Germany. In 2003 the overall employment rate in the two countries was similar; today it is 74% in Germany but only 64% in France. Among 55- to 64-year-olds only 47% of the French toil away, next to 66% of Germans (see charts 1 and, on next page, 2).

Put simply, Mr Schröder, a Social Democrat, made the political choice to get people into jobs, even if only part-time and low-paid, rather than leave them on the dole.



Source: Eurostat

His controversial Agenda 2010 measures, including the Hartz labour reforms, may even have cost him the chancellorship in 2005. They shortened the maximum period for receiving unemployment benefit, made it harder to refuse job offers and let small firms shed staff more easily. Combined with wage-moderation deals between unions and employers, the outcome was an injection of flexibility that eased low-wage service-sector job creation, lifted employment and limited job losses during the 2008-09 financial crisis.

On both the French left and right, by contrast, political leaders implicitly accepted high unemployment as a price for giving those in work more security and higher wages. This has created a dual labour market of insiders and outsiders (see next story). Employers are deterred from creating permanent jobs by the uncertainty and costs of shedding them if they have to. So they hire only on short-term contracts, reinforcing precisely the insecurity that the system of job protection was meant to avoid. Over 80% of new hires in France are on contracts of three months or less.

Under Manuel Valls, the reformist prime minister, and Emmanuel Macron, his economy minister, Mr Hollande's government has shifted its stance. There is less talk of subsidised job-creation or raising the already high minimum wage, and more of market incentives. Three years of near-zero growth and worries that unemployment may not drop before the 2017 election have concentrated minds. French employers, Mr Valls has said, are "frightened of hiring" because of labour-market rigidities. On April 19th Mr Hollande said he would make labour courts judge contested redundancies within six months; today's average is 25 months.

How far is the government ready to go ▸▸

Work it out 2
Average weekly hours worked*
*Based on actual hours worked in full-time main job, including unpaid overtime
Source: France Stratégie

on labour reform? Unlike Mr Schröder with Agenda 2010, it is doing lots of small things that make it hard to judge the whole. Mindful of hostility from unions and its own party rebels, the government has decided not to go for one big eye-catching labour-market reform. "We're doing the opposite to Renzi," says one adviser, referring to Italy's prime minister, Matteo Renzi, who has made a splash with a single, more flexible short-term contract. French reforms are parcelled out between Mr Macron, who is already pushing through a law to liberalise product markets, and François Rebsamen, the labour minister. Some planned reforms are being left to talks between employers and unions, even though only 8% of private-sector workers belong to one.

The French ragbag includes a bill, unveiled by Mr Rebsamen on April 22nd, to simplify works councils. This will not abolish "threshold effects", which deter firms from employing more than 49 staff, when rules obliging them to set up separate works councils and health-and-safety councils kick in. But it should reduce the burden, in some cases by blending the two councils into one. The bill will also merge two back-to-work benefits to encourage (if not force) the unemployed to work.

The government plans to loosen rules passed in 2013 that allow firms in "serious economic difficulty" to renegotiate working hours and pay in return for protecting jobs. Only nine firms (including Renault) have used this. Unions and employers will also discuss ways to make it easier for small firms to hire; they may loosen rules on short-term contracts or strengthen firm-level bargaining. And they must trim the €4 billion ($4.3 billion) deficit in the unemployment-insurance fund. This could mean reducing the maximum period for which benefit is paid (now three years for over-55s), or reducing payouts (now capped at €6,000 a month). These measures come on top of a cut in social charges of as much as 8%, taking a slice off France's notoriously high tax wedge on employment (see chart 3).

Mr Macron claims that all this adds up to "60% of what Schröder did on the labour market, and [referring to his product law] more than the Germans did on liberalising goods-and-services markets." He does not seem cowed by the bruising experience in February of having to force his law through parliament by decree, for want of a guaranteed majority. Indeed, if need be, the government could do the same again in July. It claims that its reforms could create 800,000-900,000 extra jobs and add a cumulative four points to GDP over five years.

It all sounds good. But the twin difficulties ahead are muddle and politics. In a recent report comparing France and Germany, Jean Pisani-Ferry, head of the government's economic-planning unit, and Henrik Enderlein, a German economist, pointed to the shortcomings of French piecemeal reform. "Partial reforms often fail to provide enough clarity to economic agents," they wrote, adding that "external perception of French priorities and directions remains blurred at best".

The best guess is that these reforms are useful steps, but nowhere near as much as France needs to prompt a lot more private-sector permanent jobs. "France could perhaps level the playing-field with Spain, or even Italy, but certainly not with Germany, where liberalisation has gone through the roof," says Ludovic Subran, the chief economist at Euler Hermes, a credit insurer. The high level of the minimum age is seen as a taboo, even for the young. Jean Tirole, a Nobel prize-winning economist at the Toulouse School of Economics, says that "at some point, you have to confront the duality of the labour market and the excessive role of judges in severance procedures."

But this may be the best that can be hoped for, given the political constraints. Mr Hollande campaigned on a promise to squeeze the rich and the banks, not to curb unemployment benefits or reduce job protection. Mr Valls, who has in the past called for such things, took under 6% of the vote when he ran in the Socialists' presidential primary in 2011. France is never far from another election. Regional polls now beckon in December, and after that the pre-presidential season will begin. So the space for taking political risks is dauntingly narrow.

Yet, if many Socialists are sceptical, the public seems less so. Less than 5% of voters support the Communist Party, the main backer of France's biggest union. After resorting to his decree, Mr Macron rose in popularity. Mr Hollande may not win friends on the left by letting his government push labour-market reform. But he has little chance of seeing a revived jobs market before 2017 if it fails. ■

Burdensome 3
Tax wedge*, % of labour costs, 2014
*Single-earner couple with two children, average earnings
Source: OECD

Labour reforms in Europe

Doing better slowly

Other European countries have moved faster than France on labour reform

ALL countries that are in the euro need flexible labour markets, because they cannot devalue their currencies if they become uncompetitive. Instead they must pursue the stonier path of "internal devaluation" by lowering labour costs. How does France compare with fellow euro members and other advanced economies?

In countries where labour markets are flexible, workers find jobs more easily because, if need be, employers can shed staff. By contrast, countries with inflexible labour markets can find their workforce split between insiders on permanent contracts and outsiders on fixed-term ones. The insulation of insiders allows them to defend their wages and working hours in hard times, pushing any necessary adjustments on to temporary workers. And high taxes on employment inevitably tend to reduce its level: France's huge "tax wedge", arising from extraordinarily high employer social-security contributions, is a strong disincentive to new hiring.

An OECD gauge of job protection finds France above the average at the start of 2013. That position is unlikely to have changed much since then, because subsequent reforms have been modest. France's inflexible labour market explains why so few new hires are for permanent positions, and may also account for an exodus of young people across the Channel and into Britain's more flexible labour market.

The OECD index also shows that France did little to loosen its overly strict job regulations between 2003 and 2013. By contrast, southern European countries have done a lot more in response to the euro crisis. Portugal has done the most, though its labour-market rules were so constrictive that it remains among the most rigid. Spain, where the labour market has long ▸▸

been notoriously blocked, introduced a reform in 2012 that made life less cosy for permanent staff by giving firms more leeway to get rid of workers on economic grounds and reducing severance pay.

Although the index (see chart) is a useful guide, it has limitations. In Italy it understates the full cost of firing workers, which arises from long legal delays and the fact that reinstatement is the main sanction for unlawful dismissal. Reforms under Mario Monti in 2012 to tackle the block on getting rid of workers were half-hearted. Although Matteo Renzi, the current prime minister, has scrapped the obligation to reinstate staff, the reform leaves public-sector workers untouched and applies only to new private-sector contracts, leaving intact the protection of existing staff.

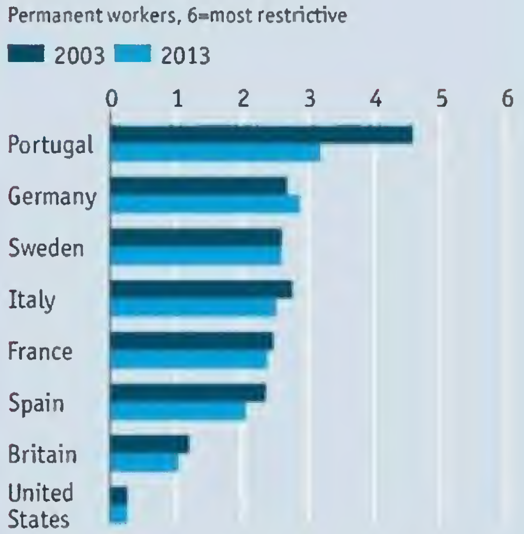
Flexibility elsewhere matters too. Despite Germany's high score for job protection, its labour market functions better because its arrangements for collective bargaining have proved surprisingly adaptable, allowing many firms to strike deals with their workforces. Until this year there was no minimum wage, and the Hartz reforms of 2003-05 made it easier to hire young people and part-timers on lower wages. Spanish firms may opt out of collective agreements, thanks to the 2012 reform. By contrast French firms are more bound by the high minimum wage set by the government, which creates a floor, and by agreements between employer groups and unions, even though these represent only a small number of workers.

Product-market regulations that impede competition also protect insiders. On an index for these rigidities France scores uncomfortably high, reflecting the fact that it has made less progress in dismantling restrictions even than hard-hit countries in southern Europe. That is why the reforms being pushed through by Emmanuel Macron, the economy minister, ought to boost employment, just as streamlining heavy-handed judicial processes that snag the labour market also should. ■

Protectionist

Employment protection indicator*

Permanent workers, 6=most restrictive



Source: OECD *Strictness of dismissal regulations

Finland's election

The Finns' moment

HELSINKI

The new Finnish government will impose austerity at home and abroad

IN 2011 Finland broke a long habit and held an interesting election. The True Finns, a Eurosceptic party led by Timo Soini, a portly rabble-rouser with a fondness for Millwall, a minor London football team, came from nowhere to win 19% of the vote, shaking up Finland's cosy political consensus and alerting Europe to a new generation of populist parties.

When Mr Soini withdrew from coalition talks over euro-zone policy, says an observer, he had "tears in his eyes". But after four years in the wilderness he is seeing straight. On April 19th his party, now The Finns, came second in the Finnish election, taking 38 of the 200 seats in parliament. That is one fewer than last time, but Mr Soini may well join a coalition government led by Juha Sipila (pictured above), whose Centre Party took 49 seats.

That may seem odd. Greece is again in trouble. If its cash-strapped government survives until the end of June, it may need a third bail-out. The mood in Finland has not softened. Yet Mr Soini apparently has. Although he says Greece should be kicked out of the single currency, his zest for power seems stronger than his distaste for euro-zone rescues. Another bail-out will be a tough sell for the new parliament, but may no longer be a red line for Mr Soini. That says much for the moderating effects of the prospect of power.

In any case Greece did not dominate this election campaign in the way Portugal did in 2011. Mr Sipila, a telecoms millionaire and revivalist Lutheran who entered parliament four years ago, is focused on reviving Finland's moribund economy, only just emerging from a three-year slump. He promises to bump growth up to 2% by 2019 and create 80,000 jobs, without explaining how. One essential must be restored labour competitiveness. Finnish wages were growing at positively Mediterranean levels, far outstripping those in Germany or Sweden, the countries to which Finland likes to compare itself. Another should be to increase immigration to boost the workforce, but that will trouble Mr Soini.

Should he join up with the Finns, Mr Sipila must also pick one of the other two big parties to secure a majority. His choice will shape the pace and composition of the fiscal austerity that lies ahead. A coalition with the Social Democrats may lead to slower consolidation than one with the centre-right National Coalition. But the influence will be marginal: all mainstream parties share an aversion to fiscal laxity.

More interesting will be Mr Sipila's choice of finance minister. That post is typically awarded to the second-placed party, but Mr Soini, who is widely praised for his running of the parliamentary foreign-affairs committee in the past four years, looks a better fit for foreign minister. Alex Stubb, the outgoing prime minister from National Coalition, is one possibility. Another is the Centre Party's Olli Rehn, who became the face of euro-zone austerity in his stint as Europe's economics commissioner. These details will be worked out over the next month; Mr Sipila promises a government by mid-May. For Finland, such talks may seem reassuringly normal. ■

Germany's finance minister

Firm elder statesman

BERLIN

Wolfgang Schäuble is Germany's eminence grise and hard man on Greece

AGED 72 and confined to a wheelchair since an assassination attempt 25 years ago, Wolfgang Schäuble, Germany's finance minister, has the political energy of a younger man. In Washington this month for the IMF/World Bank meetings, he rushed from one podium to another. Everywhere the question was whether Greece will have to leave the euro. That is not up to him but to Athens, he notes, with a well-rehearsed shrug. But the omens are not good, he reckons, because the new far-left Greek government refuses to commit to the reforms previously promised in return for bail-outs. Nobody wants "Grexit", he says. But if it comes, so be it.

Since late 2009 he has managed the euro crisis alongside his boss, Chancellor Angela Merkel. Mr Schäuble, who is impatient of foreign criticism, is convinced that ▸▸

his prescribed medicine for crisis countries—structural reforms and fiscal austerity—is working. Everywhere, that is, except in Greece since January, when Alexis Tsipras took over as prime minister and Yanis Varoufakis as finance minister (see box). Mr Schäuble seems at his wits' end with the Greek duo, feeling they have been evasive and manipulative in negotiations. A more delicate line was crossed when the newspaper of Mr Tsipras's party depicted Mr Schäuble as a Nazi threatening, in Greek, to "make soap out of your fat".

His image as the embodiment of toughness towards a fellow member of the European Union is in some ways surprising. In Germany he has always been seen as one of the old (West) German guard of European federalists, prepared to cede German sovereignty for deeper integration. For his pro-European efforts he even won the EU's Charlemagne Prize in 2012. He often talks of his post-war childhood years in the Black Forest, then occupied by the French. The family took a French soldier into its home, and he formed his first Franco-German friendship.

Trained as a tax lawyer, he entered parliament as a centre-right Christian Democrat in 1972. That makes him the Bundestag's longest-serving member. In the 1980s he became chief of staff to Chancellor Helmut Kohl. In 1990, as interior minister, it was he who negotiated the treaty of German unification, the zenith of his career. Only nine days after unification, an insane man shot him in the face and spine at a campaign event. He was paralysed from the waist down. But the tragedy brought out his grit. Within three months he was back at work.

The next year he gave what many consider the speech of his life, an emotional plea to the Bundestag to move the capital from Bonn to Berlin. He became his party's whip in parliament. As such he stayed resolutely loyal to Mr Kohl, on the understanding that he was heir-apparent and would be the party's next candidate for chancellor. But Mr Kohl refused to step down and then lost the 1998 election. When Mr Schäuble at last became party leader, a scandal broke over anonymous political donations. Mr Kohl refused to clear things up, leaving Mr Schäuble high and dry. Another Christian Democrat, Angela Merkel, then working for Mr Schäuble as party general secretary, chose this moment to strike. Announcing her coup in a newspaper article, she ousted Mr Schäuble and became party leader in 2000.

For years their relationship was frosty, especially after Mrs Merkel crossed him a second time in 2004, when she failed to back his candidacy for president. But when Mrs Merkel became chancellor in 2005, she brought Mr Schäuble into her cabinet. As the euro fell ill, so did he, after complications from new medicines forced him in 2010 to be driven from a Brussels summit to hospital. Repeatedly bedridden, he offered his resignation. Mrs Merkel did not accept it. The pair had developed their own kind of mutual trust.

In his characteristic south-western dialect, where every "s" becomes "sh", Mr Schäuble has always spoken plain truth. "A cripple as chancellor? One must ask this question," he said in 1997. Today he watches Germany's purse and has become the first finance minister since 1969 to balance the federal budget. And he wants the Greeks also to obey the rules. Any additional money to Greece would have to pass the Bundestag, where scepticism runs high among Mr Schäuble's own Christian Democrats. Without his nod of approval, there will be no deal. As one Christian Democrat in parliament puts it: "Schäuble, not Merkel, is our weather-vane." ■

Not that way, Yanis, suggests Wolfgang (left)

Greece's finance minister

Absent professor

ATHENS

The immovable Yanis Varoufakis

ALMOST every recent Greek finance minister has been an Athens university economics professor moonlighting as a politician. Yanis Varoufakis is no exception. But unlike his predecessors, Mr Varoufakis has become a global celebrity, to the annoyance of many in Syriza, the leftist party in power. To his critics, Mr Varoufakis's lifestyle—riding a powerful motorbike, spending evenings in chic bars and weekends at a smart island villa belonging to his wife—is embarrassingly close to that of the rich Greeks he castigates for avoiding taxes by stashing cash abroad.

The leather-jacketed Mr Varoufakis is not much liked by his euro-zone colleagues either. He lectures them and shows little interest in the details of reforms demanded by Greece's creditors. The pace of negotiations has picked up as Greece's cash crunch gets more acute. But Mr Varoufakis continues to raise obstacles, say officials in Brussels and Frankfurt. He is deeply reluctant to cross any of Syriza's "red lines": no more cuts in pensions, no more labour reforms, no increases in value-added tax and no privatisations beyond the handful that are already under way.

Divisions within Syriza's economic team do not help. Amazingly, Mr Varoufakis is often away on the international conference circuit. In his absence Yannis Dragasakis, the deputy prime minister, who is close to Mr Tsipras but not to Mr Varoufakis, takes over. His messages to the "institutions", as the IMF, European Central Bank and European Commission are now known (in place of the hated "troika"), are more conciliatory than those of Mr Varoufakis. But their senior officials are still banned by Mr Varoufakis from holding discussions in the finance ministry in Athens.

Greece is unlikely to reach a deal this month with its creditors. Mr Varoufakis is trying to buy more time. The latest wheeze was to get local authorities and other public agencies to transfer their cash reserves to the central bank. But without a deal, Greece seems certain to run out of money to repay its debts to the IMF and ECB. Some fret that Mr Varoufakis's half-hearted negotiating tactics show a lack of commitment to keeping Greece in the euro. As a fellow economics professor puts it: "Unlike his predecessors, Yanis isn't interested in managing the economy. What he really enjoys is brinkmanship."

Charlemagne | British cooks, European soup

The general election on May 7th could decide Britain's place in Europe

A JUMBLE of parties spanning a riotous spectrum of ideology from romantic nationalism to social democracy to parochial populism, thrown into the mix of an unpredictable campaign and none able to win a majority: Britain's general election on May 7th has a distinctly European flavour. That will be even truer after the vote, as the parties scratch together a government. Whatever programme emerges may deviate considerably from all the campaign promises. "Britain has lurched from a paragon of stability to something beyond Belgium," says one Eurocrat.

It is ironic that Britain should learn the vagaries of continental-style politics just as it appears to be drifting towards exit from the European Union. Despite this, Europe seems curiously uninterested in Britain's election. In France and Germany elections can bring EU business to a grinding halt. But now, consumed by crises from Greece to Russia to migration, the EU is paying little heed to the quirks of a grumpy island in its north-west. Election coverage in France and Germany has been muted.

That is a pity, for this election may have a decisive influence on Britain's position in Europe. Should he manage to win a second term as prime minister, David Cameron says he will renegotiate Britain's relationship with the EU and put the results to an in/out referendum before the end of 2017. By the next election, in 2020, Britain could, conceivably, be out of the club, on terms nobody can predict. And that makes other Conservative pledges hollow.

Mr Cameron, who once suggested that voters were tired of the Tories "banging on about Europe", has not pushed hard to make the EU an election issue. (His main opponent, Labour's Ed Miliband, has also seen little advantage in drawing attention to his party's "no-referendum" pledge.) But if he wins, Mr Cameron must move fast. Britain's fellow members will expect him to present his proposals for reform, which have so far remained largely opaque, to an EU summit on June 25th.

Behind the scenes, officials are working furiously to shape both the substance of those demands, from restrictions on migrant benefits to a bigger role for national parliaments, and the form in which they can be secured. Because a full rewrite and ratification of the EU treaties is impossible before Mr Cameron's deadline, the Conservatives' finest minds are debating clever alternatives. In parts of Westminster, the air is thick with talk of "Danish" or "Irish" options (both countries held EU referendums on the basis of treaty changes promised but not yet ratified).

Can it work? Britain's hand is reasonably strong, for few of its fellow members want it to leave. A "Brexit" would remove one of the EU's most dynamic economies and, besides France, the only country with global ambitions. True believers would lament a grievous blow to their European dream. Smaller countries that find Britain a useful bulwark against the tide of integration would feel exposed. Some also fret that Brexit could embolden their domestic Eurosceptic insurgencies. Italy would miss a counterweight to Franco-German hegemony. And so on.

This cluster of concerns is fuelling a British belief, in the words of one worried official, "that everything will be all right on the night". But Mr Cameron must tread carefully. Countries like France see an EU with a strong single market and competition rules, enlargement to the east and a string of special British opt-outs, and wonder why Mr Cameron cannot understand that he has already won. Officials from Germany and elsewhere also warn against opening the Pandora's box of treaty change, as other countries pile in with their own demands.

Some of this is posturing, just as Mr Cameron must say he might campaign for Brexit if the talks don't go his way (he almost certainly would not). But rather as Greek grandstanding has raised the risks of Grexit from the euro, so Britain's missteps have run its reservoir of goodwill dry. Mr Cameron, notorious for his transactional approach in a club that values long-term relationships, cuts a lonely figure these days. Some have not forgiven his decision to pull the Tories out of the centre-right European People's Party grouping. Britain's slow drift from the mainstream may also have reduced the potential pain for others from Brexit. "We'll do what we can to keep the Brits in," says a diplomat from another big country, "but to very precise limits."

Vote Miliband, get Brexit?

So much for Mr Cameron. What of the man who would replace him? Most of Britain's European friends think its place in the EU would be safe under Mr Miliband, even if they have no idea who he is. But it has become fashionable in London to suggest the opposite. The argument is that, if Labour wins, the Tories, bruised but freed from government, might choose a hardline leader who takes a sharply Eurosceptic turn and may even fight for Brexit in 2020. A weak and divided Labour government, propped up by Scottish nationalists who know that their best hope of independence is if the rest of Britain leaves the EU but Scots prefer to stay, might also be unable to resist pressure for an EU referendum.

Should Mr Cameron stay, on the other hand, he will have every interest in talking up the EU and Britain's achievements in reshaping it (even if the odd phoney battle must be staged to prove his mettle). He will re-engage with Europe, fighting for such priorities as a transatlantic trade deal. If you want Britain to stay in the EU, in short, pray for a Tory victory on May 7th.

Perhaps. But such crystalline predictions could be a relic of old thinking in Britain, when overall majorities were won, manifestos became government programmes and politics was a game of push-me-pull-you between the two main parties. Today's political marketplace is messier, its outcomes harder to forecast. Many other European countries have made their peace with this sort of politics. Britain will have to do the same. ■

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An interview with David Cameron

A lucky leader in an unlucky time

The Conservative prime minister is in the fight of his life. Time to put his shoulder to the wheel, if he can

NO ONE should doubt that David Cameron is trying to win this election. When your correspondent joined the Conservative prime minister on the 8.40am from Euston, bound for Crewe, he had already been hard at it for three hours, clearing his Downing Street desk ahead of a further 12-hour, five-constituency, five-speech day. But, strangely, many do doubt that.

"I find it very frustrating," says Mr Cameron, sounding not terribly frustrated, as the rambling green hedges of southern England flash by, "because I wouldn't do this job if I wasn't passionate about what I want to do. I think sometimes people maybe see me as a bit, I don't know, too laid-back. But it's not what I feel, it's not what I'm like."

Nothing doing. Whatever fire rages in Mr Cameron's breast, the calm efficiency that allows him to polish off a dozen tough decisions before breakfast comes across, in one so well-heeled, as a slightly alienating insouciance. The polish of the archetypal career politician—Mr Cameron was briefing ministers in his early 20s—makes this more pronounced. This is why the man who is consistently rated Britain's best leader is more appreciated than he is loved, less than three weeks before the election that may curtail his career at 48.

Sympathisers says he is unlucky (perhaps with half a smile, for the word fits oddly with this silver-spoon-fed politician). Elected to lead his party in 2005 on a promise to modernise it, he made a half-decent start, by bringing gay rights, the environment and a more emotional tone to the Tory agenda. Then the financial tempest struck, leaving Britain with a double-digit budget deficit, diminished interest in Mr Cameron's pet causes and much fear. Under the steerage of his close ally, the chancellor George Osborne—who is quietly doing his papers in an adjacent seat—his coalition government's spending cuts and pro-business rhetoric, combined with ultra-loose monetary policy and labour laws, have done much to right this, producing decent growth and 2m new jobs. But this has not made Mr Cameron loved either. "To make a £120 billion fiscal adjustment and have people leaping over themselves with joy is not easy," he says.

More money, more problems

Hence the Tories' problem in this election. Their strong suit is an economic record that looks stronger to outsiders than it feels to most Britons. Left-wing opportunists such as the Scottish National Party (SNP), which launched a spendthrift manifesto on the day of Mr Cameron's northern tour, blame this on the cuts. A far bigger problem is Britain's low productivity, which in turn is reflected in pathetic wage growth—without which, as Mr Cameron comes close to acknowledging, the jobs growth might not in fact have happened: "It's been a recovery felt in jobs rather than in increases in pay…I'd rather have the employment miracle and then work on the productivity gains rather than the other way around." This has left the Tories straddling a fine line between celebrating the recovery and cautioning against doing so, lest the public conclude there is no need for further austerity. Opinion polls suggest they are struggling to do so.

And indeed, if voters do not know whether to laugh or cry, Mr Osborne has not made it easy for them, having promised further cuts in spending—including £12 billion ($18 billion) from welfare—and also to taxes. More important, as a guide to how the government would drive the needed productivity gains, the Tory manifesto—best known for a headline-grabbing pledge to sell off more of the social-housing stock at low prices—is underwhelming.

Mr Cameron naturally denies that. "Look at what we're doing to help encourage business to invest," he says, pointing to low rates of corporation tax and regional growth programmes that are supposed to rebalance the economy—and to some evidence of success, including large quantities of inward investment. These are commendable things; but they are not a clinching recipe for the aggressive surge in productivity, exports, wages and regional rebalancing Britain needs. This is the more acute context, a suggestion that the Tories are not raising their game to address the British economy's emerging weaknesses, in which Mr Cameron's native blitheness may be starting to grate.

Later in the day, a group of oil-stained workers, wearing high-visibility orange jackets and impassive expressions, watch as Mr Cameron gives his main stump speech—entitled "Rebalancing our economy"—in a railway-carriage maintenance workshop in Crewe. It is his usual flawless display: Mr Cameron is a studied but ac- ▸▸

complished orator. But they do not applaud. "I've had one pay rise in six years," says Eric, a carriage painter. "I'm not voting for him."

Mr Cameron, as was also apparent on the train, was anyway as interested in taking down his main rivals as in talking up the economy. The choice between the Tories and Ed Miliband's Labour Party has been "turbocharged" by the Scottish National Party's surge, he says, which has probably left Labour needing its support to form a government. Mr Cameron divines a "deeply chilling" prospect of the separatists holding that government to ransom. "If this were to happen the resentment that would be built up would put an amazing strain on our United Kingdom," he says. "As a passionate unionist that really worries me." Yet hasn't the nationalist surge also thrown him a political lifeline? "I'm not responsible for Labour's wipeout in Scotland," he answers.

A troubled second term

Even before that looked inevitable, Mr Miliband's anti-business rhetoric drove business folk to the Tories in droves—an endorsement letter from over a hundred bosses "gave that some welly", Mr Cameron says with satisfaction. Was this wholly deserved, given the uncertainty he has created by promising a referendum on a reformed British membership of the European Union by 2017? A rare look of irritation crosses the prime minister's face, which he deflects into a glance out of the window. "I made the promise two years ago, and since then the levels of inward investment into the UK have been huge".

But the promise of EU reform remains incoherent, resting on a claim from Mr Cameron that the EU's rules can be rewritten to his demand, which almost no expert shares. "Well look," he says to the passing hedgerows, "I'm working on the advice I have, which is for instance, the changes to welfare…I am advised that requires treaty change." Clever and pragmatic, he perfectly well knows the flaws in his plan—he just reckons it will turn out all right, because things generally have for him.

But is he truly lucky, in his gifts and privileges, or, is he not, because of the dire circumstances in which he governs? The next two weeks could yet deliver a verdict he wants, but, to be sure of that, this able but unsatisfying prime minister had better start acting as if he seriously desires it. Has he got the gears? "Oh yes, I've got loads more gears," he chuckles, with perfect timing, and little mirth. ■

A full transcript of our interview with David Cameron and a separate video appear on our online election hub, along with regularly updated analysis. See: www.economist.com/UKelection2015

Ulster unionism

Another false dawn

BELFAST

The Democratic Unionist Party could be a big player next month

ATOP a hill in Stormont, the Northern Ireland Assembly building is one of the last architectural statements of British power. Vast, classical and symbolically rich—its six floors and six entrance pillars stand for Northern Ireland's six counties—it was built in the 1920s to serve the newly partitioned province and proclaim the great statement of Ulster unionism: "Here we stay."

How weakened, on both sides of the Irish Sea, is that commitment today. The establishment Ulster Unionists, close cousins of the Conservatives, have been swept aside by the insurgent Democratic Unionist Party, whose rowdier leadership—for years under the late Ian Paisley—matches deep loyalty to the crown with fathomless suspicion of Britain's political elite. It knows there is little interest in its cause in Westminster, where the Good Friday Agreement, which ended the Troubles and led to a power-sharing arrangement between Unionists and Republicans, is seen as the end of the matter. That is why, as Peter Robinson, the DUP's leader and Northern Ireland's first minister, contemplates an election from which his party could emerge as the kingmaker for either the Tories or Labour, he has no love for either. The DUP's eight or nine seats are there for the highest bidder.

That is a "vulgar" way of putting it, says Mr Robinson, seated in his office in Stormont; yet he does not deny it. "There is very little difference between the spending plans of the Labour Party and the Conservative Party as they apply to Northern Ireland," he says. "The real difference would be in what additional [things] one or other of the parties is prepared to do for us."

The DUP's demands could appeal to either side. The party wants to end the coalition's "bedroom tax"—a device to push social tenants out of properties too large for their needs—as Labour does, and increase defence spending, as most Tories do. It would be odd, given Northern Ireland's rent-seeking political culture, if it did not also demand more cash for a province where public spending per head is 25% above the national average.

The suspicion in Northern Ireland is that the DUP also has more sensitive requests in mind. Restrictions on the unionists' right to fly the union flag and parade through Catholic areas have added to a long list of grievances and have sparked riots. If Mr Robinson could extract some advantage in the annual row over parading it would be a great fillip for his demoralised community. He denies that he would risk the peace: "Our modus operandi will not be to twist the arm of our government to do things that will undermine the process." Yet Republicans would consider his demand "to have the same ability to fly the flag of the United Kingdom… as any other part of the UK" tantamount to that.

It is a hopeful moment for the DUP. Yet it is telling how little excitement it has stirred among its mainly working-class Protestant following. In the Shankill area of west Belfast, a front-line in the Troubles, no election paraphernalia is evident among houses festooned with union flags. Does Kim, a woman coming home with her shopping, want the DUP to fight for her right to fly them? "Sure I do," she says. "But the Catholics won't let them." ■

The man who would be kingmaker

Bagehot | The view from Grimsby

A coastal clue as to why the economic recovery isn't producing votes for the Tories

TWO big economic narratives dominate this election, both of which are evident on Grimsby dock. At its swanky new car terminal, built by Associated British Ports (ABP), a firm resulting from one of Margaret Thatcher's first privatisations, Volkswagens pour out of a cargo vessel. A couple of miles to the north, across the brown waters of the Humber estuary, gleams the coal terminal at Immingham, which handles a quarter of the fuel used by Britain's biggest coal-fired power station, Drax, and which is getting a pricey upgrade to its Victorian rail link.

Squint eastward, into the clement spring sunshine, and see a procession of small craft ferrying engineers to the sandbanks where the world's biggest offshore wind farm, Dogger Bank, is rising from the seabed. "These are the biggest investments on Humberside since the 19th century," says ABP's John Fitzgerald, who oversees four Humber ports, responsible for 17% of Britain's maritime trade. It is a vision of an economy on the move.

Then Bagehot stepped out of ABP's secure zone, to meet John Stockton, a councillor for the UK Independence Party (UKIP) and native Grimbarian, for a tour of the adjacent fish dock. Until the 1950s it harboured the world's biggest fishing fleet, of 600 trawlers, which steamed as far as the Barents Sea. For the many men who worked them, the dock was not so much a place to moor and unload as a miniature city, with shipping merchants, smoke houses, doss houses, a bank and the world's biggest ice factory, built in fine red-brick Victorian style.

But the fleet is no more, killed off by the rise of Scottish ports, over-fishing and the cod wars—a series of stand-offs over fishing rights between Britain and Iceland in the 1950s and 1970s. Just a dozen inshore tubs operate from Grimsby now, passing brooding hulks left rotting at the quay. Most of the buildings are derelict, with gaping windows and doorways, and the lettering of famous local names—like Cosalt, the ship chandlers: "They had every bit of rope you needed!" sighs Mr Stockton—fading from their fronts. A few firms cling on, such as CCS, a specialist in dog fish, and Russell Grant, an offal trader, which has found new markets for its fishy slop in west Africa. "But the old place is finished," Mr Stockton divines, "and it's never coming back."

A pocket of post-industrial misery in Lincolnshire, Grimsby does not stand for Britain. A quarter of its young people are unemployed, almost twice the national average. But in the strange lack of enthusiasm Britons are showing for the economic recovery overseen by George Osborne, the Conservative chancellor, it almost could. In the past two years Britain has seen a surge in job creation and investment. Grimsby is getting an unprecedented £200m-worth ($300m) of new infrastructure; working-age benefit claims are down by 40%. Yet, just as it will take more than signal upgrades to turn Grimsby's thoughts back from what it has lost to a more hopeful future, so all Britons, polling suggests, remain staunchly pessimistic about their prospects.

Compared with a similar stage in two previous recoveries, in the early 1990s and early 1980s, they are far more doubtful that they will recover the wage growth and job security millions have lost. There are obvious reasons for this, including the depth of the downturn and a historic knock to confidence in business and government, which are largely beyond Mr Osborne's control. Still, with their eyes on the metaphorical fish market, not the car terminal, Britons are less inclined to reward the Tories for their economic record than electoral history suggests they should.

There is also a political reason for that, which, again, Grimsby illustrates. For 70 years the Labour Party has held Great Grimsby without threatening to reverse the town's decline. That its retiring MP, Austin Mitchell, who has been in post for 38 years, briefly changed his surname to "Haddock" showed solidarity but did not recreate the lost shoals. As a mark of mounting disaffection, his majorities have been shrinking: in 2010 Mr Haddock scraped home by just 714 votes, suggesting Great Grimsby ought to be the Tories' for the taking this time. Yet that reckoned without the rise of Mr Stockton's party, UKIP, which has been fuelled by the general British malaise and by a more acute local one in neglected east-coast towns such as this. Great Grimsby is now a three-way marginal, with the right-wing vote split. Polling by Lord Ashcroft puts the Tories well behind.

The great, briny constant

A patchy recovery, a bruised electorate and growing political competition—these all explain why the Tories are not getting the votes the recovery might have been expected to produce. Quite likely, this is a recipe for unstable government after the election. Yet the hint that Britons are making politicians work harder for their favour is not unpleasing. And it is especially satisfying among Grimbarians, who have much to grumble about, and in whose enduring attachment to the sea, long after the trawlers stopped steaming, is a note of well-judged defiance as well as regret. "The sea is always with us here," says Mr Stockton, who lost a trawlerman brother to it and, as a boy, learned German and Danish from visiting foreign fisherfolk. "We only sing when we're fishing!" sing fans of Grimsby Town to celebrate a goal for their team, though hardly any has cast a net.

A free spirit, the feeling of superiority that comes with an independent trade and, on their own measured terms, openness to the world: these qualities have always been associated with Britain's coastal trade centres. They are what J.B. Priestley, on a tour of Britain in the 1930s, termed the "sea sparkle in these people's lives". And if UKIP is an unworthy recipient of that sparkle—its ideas for Grimsby, including boosting fishing and blocking renewables are, typically, all wrong—Bagehot cannot help but be guiltily impressed by the damn-your-eyes spirit fuelling it. The new car terminal, wind farms and food-processing factories are the future for Grimsby. But there is life in the old dock yet. ■

Mental health

Out of the shadows

The stigma of mental illness is fading. But it will take time for sufferers to get the treatment they need

FOR John Mooney, it was a career highlight. In March the Irish cricketer took a crucial catch that gave his team the victory in a World Cup match and eliminated the higher-ranked Zimbabwe. But afterwards the *Zimbabwe Herald*, a daily paper with links to Zanu-PF, the thuggish ruling party, claimed that Mr Mooney had lied when he said that his foot had not been touching the boundary, meaning the catch should have been disallowed. The article cited previous interviews in which the sportsman had spoken frankly about his long battles with drink, depression and suicidal thoughts. Under pressure, it claimed, a "man of such a character" could not be trusted to have "the honesty, let alone the decency" to tell the truth.

The prospect of such prejudice leads many with mental ailments to conceal their conditions and avoid seeking help. Even if they know better than to believe that mental illnesses are untreatable, or that all sufferers are delusional, they may fear being shunned by friends or employers. Many people think the mentally ill cannot work, but in reality few jobs are off-limits, and only for the most severe cases. (Someone suicidal should not be flying a plane.) What bothered Mr Mooney most about the *Zimbabwe Herald* article, he says, was that other sufferers might read it and decide never to risk letting anyone know. So he kept talking about his condition. The reaction was heartening. Messages of support and thanks are still coming in.

More people from all walks of life are opening up about mental illness, says Sophie Corlett of MIND, a British mental-health advocacy group. Campaigns by many governments and charities to get rid of the stigma are part of a virtuous circle in which each person who speaks out lessens ignorance and makes it easier for other sufferers to do so too. Only 13% of Britons surveyed in 2013 agreed that a history of mental illness should bar someone from public office, down from 21% five years earlier. The number who said that they would be willing to have a mentally ill co-worker or neighbour went up.

With greater openness comes more understanding of just how common mental illness is. One in five working-age people in rich countries suffer from a mental condition each year. About a quarter of those suffer from severe illnesses, such as schizophrenia or bipolar disorder, and the rest from less debilitating ones, such as mild depression or anxiety. But mental ailments are far less likely to receive treatment than physical ones. Over three-quarters of those suffering severe conditions, and over 90% of those with moderate ones, are treated by non-specialists or not at all (see chart 1). Lack of training means primary-care doctors miss some cases. Others go untreated because their conditions make it hard to push for referrals or deal with the insurance paperwork.

The resulting misery is huge. Put together, mental illnesses account for more suffering and premature death in rich countries than heart disease and strokes, or than cancer (see chart 2, next page). One study estimates that depression is 50% more disabling than angina, asthma or arthritis, as measured by a health score that combines factors such as reduced mobility and pain. Men with mental-health problems die 20 years earlier than those without, according to the British Medical Association, mostly from causes other than suicide. That is partly because mental illnesses make physical ones tougher to treat, and because sufferers often live less healthily. Research has linked even moderate levels of stress to lower life-expectancy. Nearly half of Finns who seek help for addictions, for instance, have a mental illness. Most of the long-term homeless in rich countries are seri- ▸▸

ously mentally ill, addicted or both.

Estimates from several rich countries put the economic cost of mental illness at 3-4% of GDP. Around a third of that is the cost of treatment; the rest is from lost productivity and the payment of disability benefits. Worklessness and mental illness feed off each other. Between a third and a half of claims for disability benefit are for mental conditions. A study in the Netherlands estimated that €1 ($1.07) spent on treatment saves €4.24 in increased productivity and reduced costs of care.

All this is propelling mental-health care up governments' agendas. In 2013 nearly 200 countries approved the WHO's Mental Health Action Plan, which calls for more and better treatment by 2020. Since 2012 Britain's National Health Service is supposed to grant "parity of esteem" to mental and physical care. Though funding is still very unequal, the principle has improved the attitude of bureaucrats and patients' access to care, says Ms Corlett. Since last year health insurers in America have had to cover mental-health services. But demand far outstrips supply, says Paul Appelbaum of Columbia University, because not enough medics specialised in mental-health care during the many years when insurance paid little or nothing for it.

Over the past few decades some rich countries have moved away from housing patients with severe psychiatric conditions in asylums and started opening community centres and care homes, and hiring more social workers and mental-health nurses. Australia, Britain, Italy and the Nordics have largely completed the transition. Japan, Korea and most countries in eastern Europe have barely started.

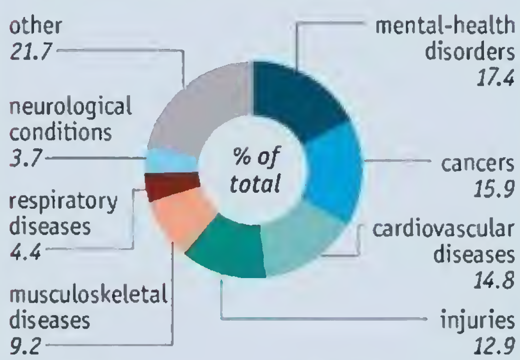
Though the idea was sound, in some countries community-based care was not ready before institutions closed. America is perhaps the starkest example, and the consequences are visible in its criminal-justice system. In 44 states the biggest mental-health institution is a prison, and police spend much of their time dealing with the effects of untreated mental illness (see page 28). But it is not the only one. British police spend as much as two-fifths of their time dealing with cases that involve mental illness, though few have the necessary training. Across Europe, 40-70% of prison inmates are mentally ill.

Mental-health courts, introduced in Florida in the 1990s and now opening in other American states, aim to divert the mentally ill from prison to community care. In Britain mental-health nurses join police officers on patrol. Their contribution can be as simple as using health records to find the address of someone who is acting oddly or causing a disturbance, or to assess the threat he poses. In a pilot scheme, the approach led to police detaining 26% fewer mentally ill people and sending more who needed acute care to psychiatric assessment rather than a jail cell.

From head to toe 2

High-income countries, people under 70, 2012

Disability-adjusted life-years* caused by:



Sources: WHO; *The Economist*

*Sum of years of life lost to premature death plus disability

The stigma of mental illness has fallen particularly fast in Australia, says Patrick McGory, a psychiatrist whom the government named "Australian of the year" in 2010. Last year the country's biggest television station raised A$1.5m ($1.2m) for mental-health research during a weeklong campaign, which included programmes about mental illness. Most treatment, even for severe conditions, is at home, with backup from crisis-resolution teams that combine social and medical care. The country's family doctors are being trained to identify and treat mental-health problems, and paid to hire mental-health nurses. An early-intervention model for psychosis, which aims to diagnose patients and provide intensive care quickly after the onset of symptoms, has been shown to improve patient outcomes and is now being copied elsewhere.

Britain has expanded access to cognitive behavioural therapy for anxiety and depression, and is now doing so for severe mental illness and those with physically unexplained symptoms. This consists of a series of counselling sessions in which sufferers are taught to watch out for situations that trigger their affliction, and how to avoid thoughts and actions that are likely to lead to a relapse. Half of patients with anxiety conditions (such as social phobia, health anxiety or panic disorders) recover after an average of ten sessions, in most cases for life. Around the same share of those with depression recover within four months, and they are less likely to have a relapse. Such therapy alleviates the severity of physical illness, too, whether psychosomatic or physical in origin. It is particularly helpful for those with pain for which no cause can be found. Greater awareness is boosting demand for treatment, though waiting lists are long.

Cheaper options that can reach more people quickly also show promise. According to a study published on April 21st in the *Lancet*, a British medical journal, group cognitive behavioural therapy could be as effective as antidepressants for recurrent depression. The MoodGYM, an online programme that works along the same lines, is now in use in Australia, China, Finland, the Netherlands and Norway.

Employers have woken up to the toll of mental illness too. Nearly a third of companies surveyed by the World Economic Forum in 2010 had established some sort of stress-reduction programme. Last year a group of big European businesses launched a charter to target the impact of depression at work. Canada's voluntary psychological safety standard for business, published in 2013, mirrors initiatives to improve physical safety. It includes a guide on how to cut stress at work, for example by cracking down on bosses who harangue their underlings or set unachievable deadlines, and suggests training some managers to spot the signs of common problems such as anxiety and depression.

Girls and boys, interrupted

The biggest gains will come from improving mental-health services for young people. Half of adults with long-term mental conditions suffered their first symptoms before turning 14. Left untreated, even moderate conditions such as anxiety hurt school results and the prospects for employment. For serious conditions such as psychosis, prompt treatment greatly improves outcomes.

But teenagers are image-conscious creatures for whom the fear of being labelled "crazy" or thought weak looms even larger than for adults. That means tact is needed, and targeted programmes. Australia's "Headspace" centres, which combine a range of health and employment services for 12- to 25-year-olds, make it easier for the embarrassed or ashamed to seek help. Finland, Norway and Sweden have schemes in schools to tackle the stigma of mental illness. Better to sort out problems early, says Mr Mooney. He dates the start of his problems to losing his father when he was 11, bottling up his grief and turning to drink to cope. Back then, he says, no one even talked about depression. Now they do. ■


THEY SAY
your operating model
should be an engine
for growth
WE MAKE
sure it can shift gears quickly
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Gazprom

Margrethe and the bear

BRUSSELS

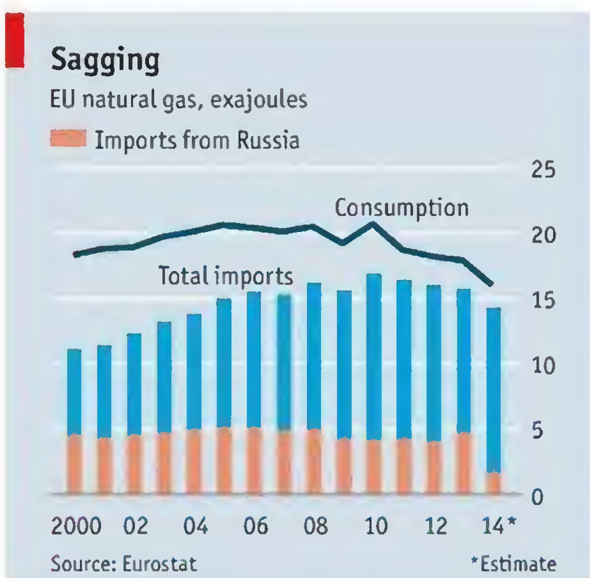
The European Union's trustbuster turns her fire on Gazprom—marking a big change in European policy and the gas business

GAZPROM revelled in its untouchability. It was the main supplier of imported gas to the European Union, benefiting both from close Kremlin patronage (the Russian state is its largest shareholder) and from a web of business and political relationships in countries it sold gas to, notably Germany. Alternatives to Russian gas were scant, as was customers' willingness to resist Gazprom's dominance.

Now the EU is taking on the Russian gas beast. The first blow fell on April 22nd when the EU's competition commissioner, Margrethe Vestager, sent the company a long-expected "statement of objections" (Euro-parlance for a charge-sheet) alleging market abuses. The unpublished document runs to hundreds of pages. They detail the murky world of Russian gas exports, featuring lucrative intermediary companies with unknown beneficial ownership, deals struck by politicians not businessmen, and a hefty dose of geopolitical favouritism.

The EU claims Gazprom is "pursuing an overall strategy to partition central and eastern European gas markets." It curbs customers' ability to resell gas, which allows it to charge "unfair prices" in five countries: Bulgaria, Poland and the Baltic states of Estonia, Latvia and Lithuania. Moreover, the EU says, Gazprom abused its dominant market position to try to keep control of the Yamal transit pipeline across Poland, and to bully Bulgaria into supporting South Stream, a now-cancelled Kremlin project to bring gas across the Black Sea into the EU.

Gazprom had put out feelers to Brussels in previous months to see if it could reach a settlement. But those talks broke down amid the freeze in East-West relations over Ukraine. Now Gazprom has 12 weeks to deal with the charges—by rebuttal, concessions or both. If it fails to satisfy the commission, the next stage is enforcement. This could mean fines of €1 billion ($1.1 billion) or more—in theory up to 10% of its turnover—and legally mandated changes to its business model. Such options are still in reserve. "All roads are open," says Ms Vestager. "We would like Gazprom to answer and we would like to talk."



Gazprom's initial response was icy. It said the EU's complaint was "unfounded", insisted that it already abides by international law and the domestic legislation of the countries where it does business, and argued that the dispute should be settled at a governmental level. Gazprom was established "beyond the jurisdiction of the EU", it noted. Revealingly, it said that Russian law gave it "special, socially significant functions...and the status of a strategic government-controlled business entity". Back in 2012 President Vladimir Putin banned such "strategic" companies from disclosing information to foreign regulators or obeying their orders.

The EU began its move against Gazprom with the launch of the "Third Energy Package" in 2007. That was a deceptively bland title for a series of measures that "unbundled"—in fact, upended—Europe's energy market. The main effect was to ban the same company from owning both the gas pipelines and the molecules that flow through them. Russia objected harshly to this, seeing it as a politicised, unprovoked and confiscatory attack on Gazprom's assets and business model.

However, rather like Microsoft, which fell foul of EU competition law for bundling its Internet Explorer browser with its Windows operating system, the company and its political masters did not grasp the EU's ferocious prosecutorial powers. And the more the EU looked at Russian gas imports, the less it liked what it saw. In 2011, in the biggest antitrust raid in the EU's history, officials with search warrants seized documents and computers from dozens of ▸▸

offices belonging to Gazprom and its affiliates. In 2012 the EU followed this up by opening a formal investigation.

The statement of objections has been largely ready since 2013, but was subject to a long and timorous delay. Ms Vestager's predecessor, Joaquín Almunia, repeatedly promised to launch charges, but left office in November with that pledge unfulfilled. Senior people in the commission thought a deal would be better than worsening relations with Russia.

Now Europe is in a more robust frame of mind. Ms Vestager, a steely Dane, insists that her directorate is part of the justice system and acts without fear or favour. The move against Gazprom came only a week after it launched a statement of objections against another corporate giant, Google.

For Gazprom the most petulant option would be to ignore the EU. That brings speedy penalties—and also potential lawsuits from customers who have been overcharged, notes Alan Riley, a British law professor. Another option is to mount legal challenges—including ones claiming abuse of property rights. Vaclav Bartuska, the Czech Republic's energy envoy, forecasts a climbdown, masked by a showy but empty deal on future exports to China to show the Russian public that the Kremlin is punishing Europe for its impudence.

Russia may also press ahead with Turk Stream, a Black Sea pipeline which would deliver gas just as far as the Turkey-Greece border, to avoid the EU rules that stymied South Stream. The Kremlin is wooing Greece to support the project, with a $5 billion sweetener. More such divide-and-rule tactics in Europe are likely: Russia's pipelines export political influence even when they are still mere lines on a map.

But turning off the gas taps, to punish the EU, seems unlikely. Russia is losing market share in Europe already, and cannot afford to annoy its customers or endanger its $40 billion export revenues.

A cold climate

Worries about dependence on Russian gas have in any case diminished. Not only is the winter over but Europe is generally in better shape to withstand a Russian tantrum. It has improved storage, and built north-south gas links, so that a cut in shipments across, say, Ukraine, can be made up with other supplies. Lithuania, once wholly dependent on Russian gas, has built a terminal to import liquefied natural gas (LNG), gaining a swift price cut from Gazprom. This year America will start LNG exports, creating yet more supply options.

For Mr Putin, the commission's move underlines the scale of Russia's isolation. Trust and patience have ebbed, even in Germany. His friends are fewer in number. By using energy as a weapon, he has prompted defence and counter-attack. The bear is not as feared as it was. ■

Airlines

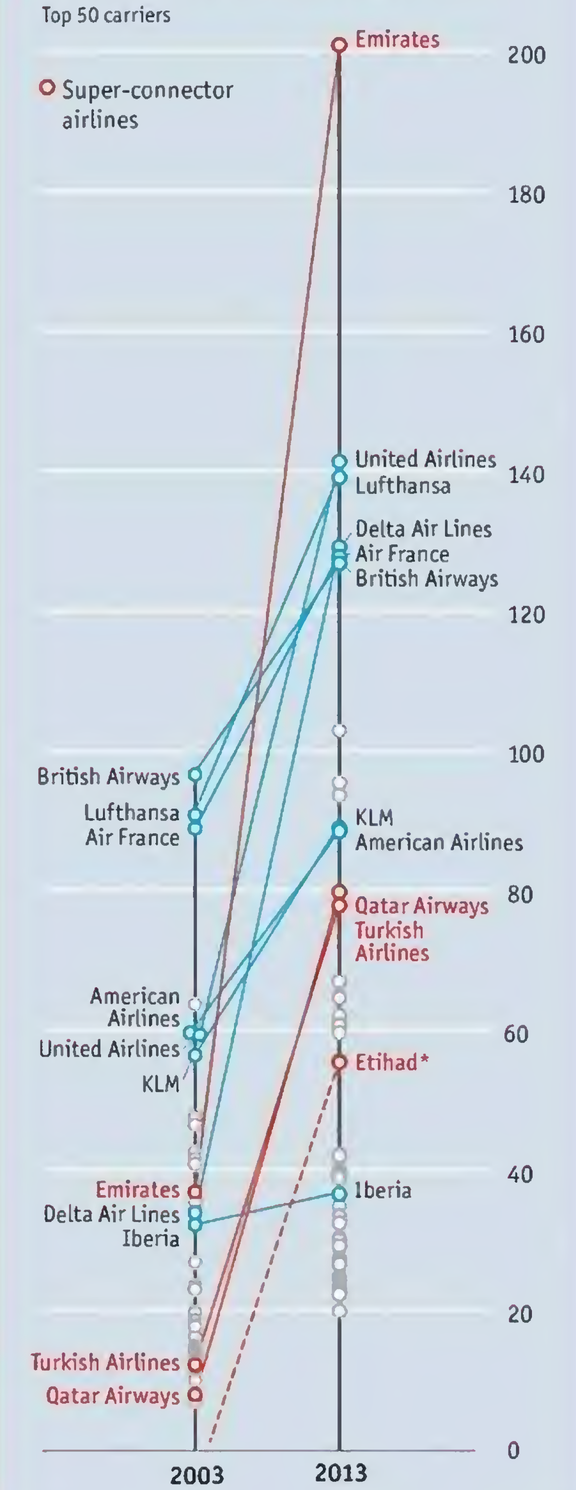
Super-connecting the world

The advance of Emirates, Etihad and Qatar, latterly joined by Turkish Airlines, looks set to continue

THE Gulf states have been on the radar of the world's airlines since the 1930s. Then Dubai, a pearl-fishing port, served as a stopover for the flying boats of Imperial Airways (a forerunner of BA) on routes connecting London to distant colonial outposts. BA still serves Dubai but most of the tail fins at its vast main airport, which recently overtook London's Heathrow as the world's busiest for international traffic, carry the logo of Emirates, the small state's own network airline. The balance of power among the world's carriers has shifted.

Reach for the sky

International airline revenue passenger km, bn
Top 50 carriers



Source: IATA

*Established in 2003

A decade ago Emirates, Qatar Airways and Etihad Airways, based in Abu Dhabi, were insignificant. But these three "super-connectors", in recent years joined by Turkish Airlines, increasingly dominate long-haul routes between Europe and Asia. Whereas most other international airlines rely heavily on travellers to or from their home countries, the super-connectors' passengers mostly just change planes at the carriers' hub airports on their way to somewhere else. Last year the four carriers flew about 115m people into and out of their hubs in the Gulf or Istanbul, compared with 50m in 2008. Their combined fleet has swollen to more than 700 aircraft and they have a further 900 or so on order.

The West's legacy airlines are understandably fearful of the super-connectors. All have grown at spectacular rates; Emirates is now by far the world's biggest international carrier (see chart). Europe's struggling national airlines, such as Lufthansa and Air France KLM (AF-KLM), were among the first to start losing market share to the super-connectors. They are now suffering the same devastation on long-haul routes that low-cost carriers (LCCs) like Ryanair and EasyJet have inflicted on their shorter routes. As Andrew Charlton of Aviation Advocacy, a consulting firm, puts it: "The LCCs ate European airlines' lunch; the Gulf carriers are coming to eat their dinner." Lufthansa says its Frankfurt hub has lost nearly a third of its market share on routes between Europe and Asia since 2005, with more than 3m people now flying annually from Germany to other destinations via Gulf hubs.

A gulf opens up

Now the grumbling is getting louder from across the Atlantic, as America's airlines begin to feel the heat. This week a lobby group backed by Delta, American and United Airlines released documents to back up a report it put out in February, accusing the three Gulf carriers of having been given $42 billion in assistance by their state owners in the past decade.

Emirates now publishes full accounts but Etihad and Qatar still do not. However, the American carriers' investigators dug up documents filed with regulatory authorities around the world, from Belgium to Australia, which in some cases include detailed accounts going back a number of years. Some of the benefits allegedly received by the Gulf airlines—such as zero-in- ▸▸

terest loans with no arrangements for repayment, and grants of land—would if confirmed seem to fall under the heading of subsidies.

Others, such as the low labour costs that the Gulf airlines enjoy, partly because of their home states' ban on unions, and the benefits they, like other businesses in the Gulf, gain from those states' generally low tax rates, would seem legitimate means of promoting business development. The cache of documents is enough to keep lawyers, accountants and trade economists arguing for years—but at the least it suggests that the Gulf three have some explaining to do if they are to justify claims they are standing on their own feet.

The legacy carriers gripe too about the massive airports, with cheap landing charges, that their home governments have built for the Gulf airlines. Although Turkish is part-privatised, it still enjoys strong support from the government, which has ordered the building of a massive new airport on Istanbul's outskirts, with about twice the capacity of Heathrow, so its flag-carrier has space to keep growing.

Allegations of unfair advantages explain only so much, however. For one thing, the West's legacy airlines have not lacked for state protection of their own. For another, the super-connectors' rapid advance is in large part down to something out of policymakers' control—location. The Gulf is handily placed between Europe, Asia, Africa and America: all are in range of modern long-haul jets. Istanbul, on the edge of Europe, is a short-haul flight from 55 capital cities. Both are ideal for consolidating traffic to and from many destinations. Fares can be kept low because of the efficiency of their long-haul-to-long-haul model.

The four super-connectors are spending huge sums expanding their fleets with the latest, most efficient jets. Their staff are young and keen, and the airlines spend lavishly on marketing their in-flight service and widening range of destinations. In 2001 Emirates and Qatar both flew from 17 destinations in Europe. Now both serve 32. Turkish sucks up passengers from 84 European airports. Besides increasing the number of European cities it flies from, Etihad has taken stakes in several European carriers, including Alitalia of Italy and Airberlin of Germany. The super-connectors have likewise added lots of new destinations in Asia, whereas the European flag-carriers have expanded their route maps more cautiously. As a result, the super-connectors' share of booming Europe-to-Asia travel has shot up.

In similar fashion the super-connectors and their hubs have been siphoning off an increasing share of air traffic into and out of Africa—still a relatively small market for aviation, but one that has grown rapidly, especially given Asian economies' interests in its natural resources.

And now they are ramping up their services to North America. To the dismay of America's international carriers, in the weeks since they launched their broadside against the Gulf airlines' alleged subsidies, Emirates has announced a new service to Orlando and extra flights to Boston and Seattle. Turkish, meanwhile, has just begun non-stop flights to San Francisco, its 11th destination in the Americas, and plans to add Atlanta and Mexico City, among others. As the super-connectors encroach onto American runways, passengers are likely to vote with their wheelie-bags. According to Skytrax, a research firm, they all ranked in the top ten of the world's best airlines. The highest placed of America's big three is Delta, at 49th.

The reaction of most of the established airlines has been two-pronged—complaining, and further rounds of cost-cutting on top of what they have already had to pare to cope with the arrival of the LCCs. One exception is IAG, owner of BA. It managed to slash costs at Iberia and has avoided much of the turbulence created by the super-connectors. Indeed IAG, in which Qatar owns a 10% stake, recently pulled out of a European trade association saying the group's opposition to the super-connectors, led by AF-KLM and Lufthansa, was no longer consistent with its own position.

AF-KLM and Lufthansa themselves have tried to make up for years of bad management by beefing up their budget subsidiaries, Transavia and Germanwings. They have met stiff resistance from within. Pilots have gone on strike repeatedly over the past year to oppose various changes the airlines are making to become more competitive. AF-KLM has had the bumpier ride of the two. It issued three profit warnings in 2014, has shed 8,000 jobs over the past three years and plans to lose another 800 employees as it cuts investment and delays delivery of some new aircraft.

Berating the new opponents for perceived injustices has also failed so far. The legacy carriers want changes to the bilateral "open skies" agreements that have allowed the super-connectors access to European airports, and which they had supported back when the Gulf airlines were minnows. Lufthansa and AF-KLM have asked the European Commission to press for "fair competition" provisions for current and future air treaties. America's three big international carriers want the Obama administration to stop the super-connectors from adding routes.

Open-skies treaties can be watered down without ripping them up. Governments can dither and delay. Norwegian Air Shuttle, a low-cost carrier, has been hampered by American regulators, at the urging of industry lobbyists, in its efforts to expand services across the Atlantic. But so far there has been little overt gain to the incumbents from their griping.

Indeed, it may have done some damage. Delta's boss, Richard Anderson, gratuitously noted in an interview that the Gulf carriers are based in the part of the world that bred the terrorists responsible for the 9/11 attack on America, before apologising for the remark. And in response to the subsidy accusations levelled by the American carriers, the Business Travel Coalition, a lobby group backed by travel agents among others, has begun drawing attention to the support that America's government has given to its aviation industry over the years.

The West's legacy carriers put a lot of effort into letting politicians know about their concerns. But the chances that the American and European governments will roll back their open-skies commitments and halt the expansion of the super-connectors do not look good. American and European makers of aircraft and engines, which are benefiting hugely from the expansion of the super-connectors' fleets, also form a powerful lobby. So do passengers, who have shown little sympathy for their struggling national airlines and plenty of interest in their rivals' cheap fares.

If anything, matters can only get worse for the legacy carriers. If Norwegian makes a go of low-cost transatlantic flights, Ryanair and others will pile in. China's huge, state-backed airlines are surely planning to boost their market share on Pacific routes. And the high profits that America's airlines have recently been enjoying at home are likely to encourage the expansion of low-cost carriers there. In all, the future looks poor for investors in the legacy airlines. For travellers, however, the age of cheap flying is set to go on and on. ■

China's motor industry

The coming crash

SHENYANG AND SHANGHAI

For carmakers, the profits bonanza from China will not last

"THIS is one of the most advanced and sustainable car factories in the world." So declares Karsten Engel, chief executive of BMW China, as he greets visitors to his firm's newish manufacturing facility in the grim north-eastern city of Shenyang. The plant, run by a joint venture with a local firm called Brilliance, is indeed spotless and efficient, with robots and humans together producing nearly 40 cars each hour. China is the largest market in the world for the firm's big 5 Series and 7 Series models, and source of perhaps half of its global profits in recent years. Unsurprising, then, that the firm is hoping to double the number of models built locally.

The bosses of many big foreign car firms were in China this week for the Shanghai Auto Show, and they too offered a pretty rosy view of the Middle Kingdom. China has overtaken America as the world's largest car market, and it has contributed between a third and a half of the global profits of many big automobile manufacturers in recent years. Like BMW, other foreign firms are also betting heavily that the good times will continue by expanding production capacity in the joint ventures that the Chinese government requires them to form with domestic firms. Jochen Siebert of JSC Automotive, a consulting firm, estimates that the joint ventures will open $12 billion-worth of new factories in China this year and next.

And yet the hard truth is that these firms may now be headed for a car crash, shattering their dreams of never-ending profits. The first reason for this is that sales growth is slowing. The days of double-digit annual increases are over. In the first quarter of this year sales of new vehicles slowed to single-digit annual growth. Paul Gao of McKinsey, another Western consulting outfit, forecasts that growth rates will remain in the "mid-to-high single digits" for the next decade.

That is a higher rate of increase than many other countries can look forward to. However, given the new plants being opened, it looks like being insufficient to correct a worrying excess of capacity that is building up. Enough new plants to make another 5.3m light vehicles a year are due to come online in 2015 and 2016, compared with sales last year of 22.8m.

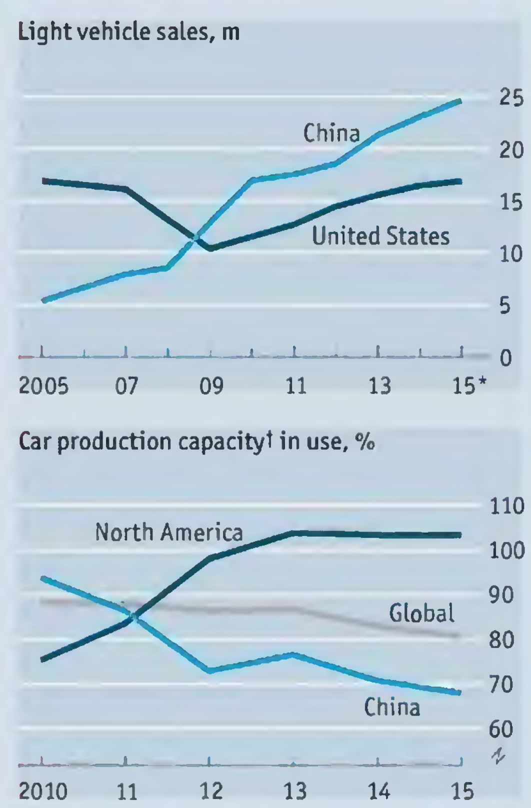
A rough rule of thumb in carmaking is that assembly plants need to be working above about 75% capacity, assuming two eight-hour shifts each normal working day, to be profitable. America's closures of car factories, followed by a sharp recovery in sales, mean that its plants are now working at above 100% of that capacity. In contrast the average for Chinese assembly plants has now slipped to below 70% (see chart).

So a squeeze is coming. One sign of trouble is a backlash among dealers, who are unhappy about having their bonuses tied to unrealistic sales goals set by the joint ventures during headier times. In January BMW had to offer over $800m in payments to its dealers to quiet their complaints. Toyota is expected to hand $200m to dealers affiliated to FAW, one of its joint-venture partners. Other foreign firms are expected to do the same.

Used cars, once shunned, are now taking off, as motorists realise they can be a better-value alternative to a new set of wheels. In March, Uxin, an online-auction firm specialising in used cars in China, won $170m in funding from Baidu, a local internet-search giant, and KKR, an American private-equity firm.

As new-car buyers have become scarcer, some of the biggest-selling foreign brands in China, such as Ford and VW, have had to start offering rebates and discounts to shift the metal. Second-tier brands and local firms are sure to follow suit. Max Warburton, an industry analyst at Sanford C. Bernstein, a research firm, warns that "price reductions are almost always one-way, so these cuts will lock in lower margins." Mr Siebert estimates that Western firms will see their profits from China plunge by half this year versus last.

Presaging a pile-up



*Forecast †Normalised capacity is two shifts of eight hours, 235 days per year
Source: IHS Automotive

Despite BMW's expansion plans, in a closed briefing for analysts, its soon-to-retire boss, Norbert Reithofer, recently warned how bad things were looking. Pricing pressures were especially dramatic for the firm's most luxurious models, such as its British-built Rolls-Royces. "Something has changed in China," he told them.

As for those Chinese firms not in a joint venture with foreign ones, they have for years had to suffer from their cars being spurned by consumers. A few independent local manufacturers have recently benefited from the rising popularity of small, cheap sport-utility vehicles (SUVs). As it happens, in China such vehicles are mostly built by domestic firms. Great Wall, arguably the best of a bad bunch, has decided to cut its output of saloons to concentrate on its better-known range of SUVs.

However, look beyond this brief respite (Western firms will surely bring their own mini-SUVs to China quickly), and it becomes clear that local firms are in even bigger trouble than foreign ones. Of the dozens of motor manufacturers in China, most are smallish local outfits cranking out lousy cars. Many of these are bleeding red ink. They are able to stay afloat only because of subsidies, and favourable procurement policies, from the authorities in their home cities and provinces.

A handful of the best state-owned carmakers—like Shanghai Automotive, which has joint ventures with both GM and VW—do make handsome profits. However, they are viable only because the government forces foreigners into these joint ventures. The idea was that, by now, the Chinese firms were supposed to have learned from the foreign ones how to design, build and sell great cars. Instead, the cosseted domestic firms have failed to learn, and have been relegated to mere contract manufacturers.

If market forces were allowed to function in the Chinese motor industry—both by ending the subsidies and letting the foreign carmakers either buy up their Chinese partners, or dump them and go it alone—there would surely be a drastic consolidation. Many Chinese firms would cease to exist, though a few, forced to live on their wits, might learn to innovate, and flourish. Even without reform, the increasing squeeze on carmakers in China may prompt a more limited shake-out. In what may be an early sign of this, rumours flew this week that VW was in talks to take a stake in Great Wall.

If China's dreams of having its own, world-class car brands are not going to be fulfilled by its domestic motor companies, ▸▸

then perhaps it ought to be looking elsewhere—for instance to its innovative and nimble technology firms. Cars are increasingly bundles of software on wheels, and in the future they will increasingly be connected wirelessly to all manner of navigational aids. So if Apple is looking to get into carmaking, why not Xiaomi, a Chinese maker of mobile devices, or Tencent, a social-media and gaming giant?

Or indeed Alibaba. Of all the companies at this week's Shanghai Auto Show, among those attracting the greatest buzz was the e-commerce company, which unveiled partnerships with GM and BMW to offer Chinese consumers online tools to find, buy, finance and service their cars. What it did not mention publicly this week is that there is also a stealth team working on an AliCar. Watch this space. ■

Net neutrality in India

Not quite what we said

MUMBAI

India's telecoms regulator is accused of doing the industry's bidding

IN 1961 A.J.P. Taylor suffered a caustic book review at the hands of Hugh Trevor-Roper, another British historian. The book put Taylor's standing as a serious academic in peril, said his reviewer. Taylor responded with an article: "How to quote: exercises for beginners". In it he juxtaposed quotations from his book alongside passages from the review. They were somewhat at odds. Trevor-Roper's methods of quotation might harm his reputation for seriousness, concluded Taylor, "if he had one".

Half a century later, the seriousness of the Telecom Regulatory Authority of India (TRAI) has been questioned in a Taylor-style takedown by SaveTheInternet.in. The group, which lobbies for net neutrality (the equal treatment of all internet traffic), has analysed a text box in a recent TRAI discussion paper, which the agency attributed to *The Economist*. Compared with the two original articles on which the box was based, in our January 31st 2015 issue, the campaigners found that arguments against strict net neutrality had been inserted while arguments for it had been removed or tweaked. For instance, "net neutrality is under threat" became: "net neutrality is difficult to sustain". Robert Ravi of TRAI denies any deception. The text does not purport to be verbatim, he says. And the tweaks? "I don't find there is a great difference between 'difficult to sustain' and 'under threat'". Yet one implies the status quo may change; the other that it must.

The threat seems real enough in India. The purpose of the TRAI paper was to ask whether "over-the-top" services such as data, internet telephony and instant messaging, which rely on mobile networks' data connections and which in some cases compete with those networks' basic call and text services, should be treated differently from other traffic. Bharti Airtel, India's biggest operator, recently launched a scheme that gives customers free access to a select group of data services. Airtel says this is little different from letting businesses provide toll-free phone lines, and that it is committed to net neutrality. But SaveTheInternet.in argues that Airtel's differential pricing means it is not being neutral between providers of online content, and that consumer choice will suffer.

Indian regulators do not generally enjoy a reputation for independence. And the net-neutrality activists see TRAI's misquoting of our articles as evidence that it is doing the operators' bidding. The industry's poor profitability, the result of intense competition, might indeed be boosted if it were allowed to charge variable prices for data traffic. But its squeezed profits also mean a lack of money to invest in improving call quality and extending mobile coverage. Perhaps that is why the sacrifice of net neutrality is being mooted in India. ■

Petrobras

Deep under water

Brazil's energy giant comes clean with investors

KNOWING the worst can help with a recovery. But it is no guarantee. Petrobras issued its much-delayed results on April 22nd, after accountants had scoured its books to find details of many years of scams and kickbacks, which are part of Brazil's biggest corruption scandal. The state-controlled oil company said that graft had cost it 6.2 billion reais ($2.1 billion). Other charges included a bigger-than-expected write-down of 44.6 billion reais, mainly on a flagship petrochemical complex and a big refinery. The net loss was 21.6 billion reais in 2014, against a 23.6 billion reais profit the year before.

Cleaning up Petrobras (and Brazil's political system) is a long-term job. In the short term the company is focused on survival, with production sinking, oil prices low, cash scarce, and a hefty bill looming to develop its prized assets: the "pre-salt" oilfields that lie deep below the country's offshore waters.

Publishing audited results was vital. Creditors could have demanded early repayment of $54 billion of debt if the company had missed a deadline of April 30th. The previous management's borrowing binge left Petrobras as the most indebted company in the world, and—when the scandal broke—an outcast from the capital markets.

Openness about the past will not forestall American shareholders who are fuming about mismanagement; some have already sued. But for now, investors seem willing to give the new management under Aldemir Bendine, a former boss of state-controlled Banco do Brasil, a chance: Petrobras's shares have steadied in recent months, though they are still well below their peak (see chart).

Mr Bendine says he will husband cash by cancelling this year's dividend, slash capital expenditure, and sell $14 billion of assets by the end of next year—though finding buyers for them is another story.

The company's future does not lie just with its management. Politicians must not only stop stealing: they must cease interfering too. President Dilma Rousseff's left-wing Workers' Party forced Petrobras to sell imported petrol at a loss to keep pump prices low. That made the company bleed cash. The government has since let it raise prices, but Petrobras still suffers political pressure, such as demands for big dividends, which help bolster Brazil's threadbare public finances. The government insists that Petrobras should take the lead in developing offshore fields—a task for which it may have the technical expertise, but not the balance-sheet.

Some of these problems will land on Shell's desk. The Anglo-Dutch giant has just bought BG, a British energy company, which is a big partner for Petrobras. Mr Bendine says he may seek more ties. Shell has cash and know-how, but may tread carefully in a country where nemesis follows hubris, and there is always plenty of blame to go round.

Peak oil

Share prices, $ terms, January 2005=100

Source: Thomson Reuters

Schumpeter | Twilight of the gurus

The management-pundit industry is a shadow of its former self

IT IS customary nowadays for management gurus to preach that competition is fiercer than ever. Rita McGrath of Columbia Business School talks about "the end of competitive advantage". Richard D'Aveni of the Tuck School of Business refers to "hypercompetition". Ram Charan, a consultant and writer on management, lauds "The Attacker's Advantage".

Yet the management-guru industry itself seems remarkably stable. Competitive advantage is strikingly enduring, competition is far from "hyper" and the defender has the upper hand. The latest two "Thinkers50" rankings of the world's leading management pundits, published in 2011 and 2013, show no change at the top, with Clay Christensen of Harvard Business School and the duo of Chan Kim and Renée Mauborgne of INSEAD ranking first and second respectively. Two of the most prominent business books of the past few months have been retreads rather than new publications with new ideas: the tenth-anniversary edition of Mr Kim's and Ms Mauborgne's "Blue Ocean Strategy" and the 20th-anniversary edition of Don Tapscott's "The Digital Economy". It is a far cry from the glory years of the 1980s and 1990s, when "In Search of Excellence", by Tom Peters and Robert Waterman, sold 3m copies in its first four years and "Re-engineering the Corporation", by James Champy and Michael Hammer, touched off a global re-engineering craze.

What explains such lethargy in a supposedly lethargy-busting industry? The main problem is that the guru business is reaching the end of a long cycle of creativity. For the past two decades or so it has been driven by two seismic economic changes—the rise of the emerging world and the digital revolution. The first change led to the ascent of a remarkable group of Indian management theorists, most notably C.K. Prahalad (who died in 2010). They focused on subjects such as the buying power of developing-country consumers, the virtues of frugal products, and the difficulties of doing business in places with poor infrastructure and weak institutions. The list of business schools with Indian-born deans includes those of Harvard, Cornell and Chicago universities. The digital revolution produced a new class of digital gurus, such as Mr Tapscott. And Mr Christensen's idea of disruptive innovation (which holds that the most successful innovators create new markets, rendering many established businesses irrelevant) rightly turned him into the world's leading management guru.

But the cycle has played itself out. Prahalad published his seminal article on "The Fortune at the Bottom of the Pyramid" in 2002, and the book of the same title in 2004. Mr Christensen published his first article on disruptive technology in 1995 and his book on "The Innovator's Dilemma" in 1997. The new edition of Mr Tapscott's book reminds us that people have also been grappling with the digital revolution since the 1990s.

Ironically, the digital revolution is making it harder for new gurus to emerge. Many of today's biggest business changes are being driven by "quants", who excel at finding meaning in big data or at producing algorithms that can automate lots of work, but who are much less good at putting numbers into words or at thinking about what big data and automation mean for industries beyond their own. The management-theory business is producing plenty of mini-gurus who specialise in particular industries or techniques, such as Philip Evans in big data or Jim Whitehurst in collaborative ("open-source") management. But few of the new pundits can range across as many industries as Tom Peters does, let alone across the centuries and multiple intellectual disciplines in the manner of the late Peter Drucker.

Perhaps the biggest enemy of guru renewal is the development of a "thought leadership" industry. Companies are being sold the idea that becoming a leading public thinker on some issue affecting their industry will give them a competitive edge. Industrial and tech firms like Siemens and IBM are doing battle with more established peddlers of management thinking such as McKinsey and Bain. As Whitespace Consultants, a smaller firm, puts it, thought leadership makes you "part of the conversation early in the buying journey". In the recent sexual-discrimination case that Ellen Pao brought unsuccessfully against Kleiner Perkins, a venture-capital firm, it emerged that one of the reasons she was not promoted was that she was judged to have fallen short on the thought-leadership front.

Pursuing thought leadership simply encourages thought followership, however. As companies scramble to be seen as thought leaders, they are likely to end up just repackaging existing ideas instead of listening out for genuinely new ones. Whenever companies treat thinking as "content" and deploy their marketing and PR people to pump it out, the result is bound to be cliché or gobbledygook.

Mind-stretching in Mountain View and Massachusetts

Are there any signs of a new wave of gurus who can buck these trends and revive their stagnant industry? There are glimmers of hope in Silicon Valley and the Massachusetts Institute of Technology. Some of the Valley's most successful entrepreneurs, such as Reid Hoffman (LinkedIn) and Peter Thiel (PayPal), are stretching their minds to address all sorts of challenges, from ageing to talent-management. "The Second Machine Age", by Andrew McAfee and Erik Brynjolfsson of MIT's Sloan School, is a striking attempt to grapple with the massive management change that will result from autonomous machines.

But considering the resources that are devoted to thinking about management, it is remarkable how much virgin territory remains. There are still no Chinese management gurus to challenge the leadership of the ageing Indian establishment. There are still no serious books on what the internet economy means for the boundaries of the firm or markets for talent. The guru industry seems ripe for disruptive innovation. ■

Also in this section

For daily analysis and debate on economics, visit
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Greece and the markets

Hellenic bruises

How the smart money is approaching the latest drama

CONTRARIAN investors love terrifying headlines. The more unloved the country, the more undervalued its assets and the more money to be made as its fortunes turn. Moneymen who shrewdly exploited the on-again-off-again panic regarding Greece's finances have made handsome profits in recent years. In the second half of 2012, for instance, holders of Greek government bonds doubled their money. In the second half of 2013 the main stockmarket index rose by almost 40%. It is striking, therefore, how hard it is these days to find financiers willing to make any bets on Greece at all.

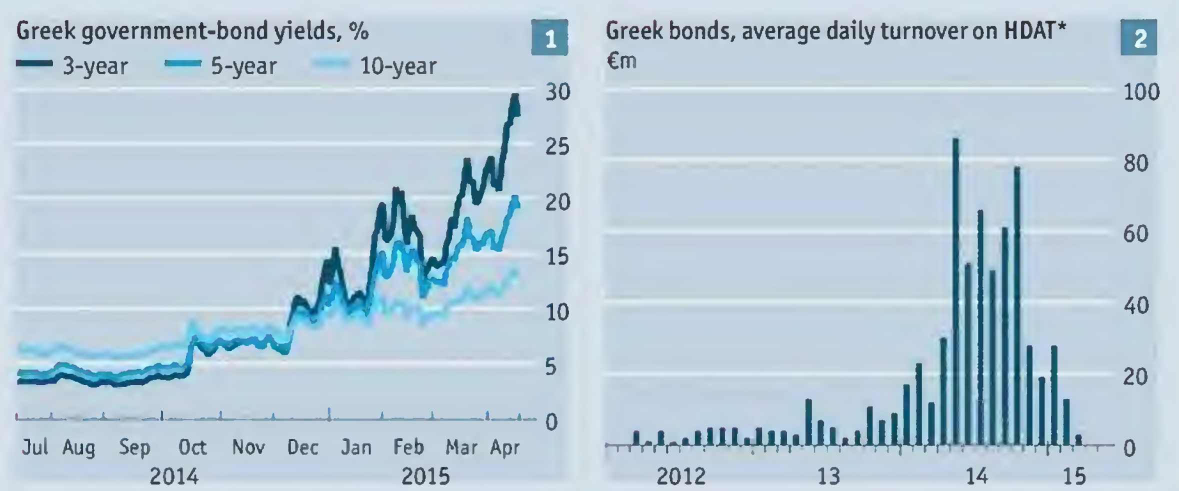
The country is once again running out of money. On April 24th euro-zone finance ministers are due to meet in Latvia to decide whether to provide a lifeline by disbursing the last instalment of the existing bail-out package. The problem is that Greece's new government has refused to implement reforms promised by its predecessor, and has not proposed alternatives its creditors consider adequate. Talks continue, but the two sides remain far apart. If Greece does not secure more cash, it will soon have to default either on its own citizens (see Free exchange) or on the IMF and the European Central Bank (ECB). That, in turn, could prompt the ECB to withhold support for Greek banks, forcing Greece to impose capital controls and perhaps to withdraw from the euro.

All manner of financial indicators suggest disaster is imminent. The Greek government's three-year bonds now yield a dizzying 27%. Ten-year government bonds are trading at their highest yields (and therefore lowest prices) since 2012 (see chart 1). Credit-default swaps, which offer insurance against a default, suggest an 80% chance of one within five years. Listed Greek firms are trading at less than 60% of their book value, on average. Greek bank stocks are down by 75% compared to this time last year.

Betting house Paddy Power puts the odds of Greece adopting a new currency before 2018 at 5/4, of a new election being held this year at 3/1 and of Greece exiting the euro zone this year at 2/1. William Hill, another bookmaker, has stopped taking bets on "Grexit" altogether because too many people are putting their money on it. Just in case anyone still thought Greek debt was a sound investment, S&P, a rating agency, downgraded it to a lower category of junk earlier this month.

All of which marks a change. In recent years Greece had seemed like the ideal destination for contrarian investors: in enough trouble that assets were cheap, but with the near-certainty that Europe would bail it out. In 2012 and 2013 hedge funds such as Third Point and Alden, among others, began hastily drumming up money to bet on a Greek recovery. Others followed in 2014 as foreigners ploughed more money than expected into local banks. John Paulson, who runs a feted hedge fund, was among those buying shares. Last April, when Greece returned to the international market to sell five-year bonds, yield-hungry investors piled in. Even when Syriza came to power in January and markets wobbled, a few opportunistic investors increased their positions, convinced the difficulties would be temporary. ▸▸

High and dry



Sources: Bloomberg; Barclays; Bank of Greece

*Bank of Greece secondary market

Today few foreigners remain and most of those have trimmed their positions. After two bail-outs, only 11% of Greece's government bonds are in private hands. Eaglevale, an American hedge fund whose Greek investments lost half their value last year, is now abandoning the bond market. After a flurry of interest in the run-up to the election in January, trading has atrophied (see chart 2 on previous page).

Analysts at big banks still hope for a compromise but concede that the odds are lengthening. A few investors, such as Japonica, another American hedge fund, are still convinced they will be vindicated, but most are hedging their bets (for example, by shorting Greek stocks) or are simply stuck because it is hard to sell in such an illiquid market. Some, like Mr Paulson, whose shares in Piraeus Bank are now worth a fifth of what he paid, are staying put and hoping for the best. But nearly all agree that their investments will prove either a bonanza or a wipeout. "Although compromise is still the most likely outcome, many Greek stocks and all of the banks are either trading violently cheap or are worth more or less zero," argues Matthew Wood of Lancaster Investment Managers.

Most moneymen, however, are studying events in Greece not with a view to investing there, but to gauge the impact elsewhere. Government-bond yields remain subdued in other cash-strapped Mediterranean countries, but pessimists attribute that more to the ECB's big bond-buying scheme than to confidence in places such as Italy and Portugal. Francesco Garzarelli of Goldman Sachs, an investment bank, says contagion will be greater if Greece's euro-zone peers eject it from the currency union by inducing the ECB to withhold emergency funding from its banks, as that would fundamentally alter investors' grasp of how the euro zone works. Yanis

Buttonwood | Default is not in the stars

Junk bonds have been remarkably good credits

THE world of bonds is usually thought of as one of rigid divisions. At one end of the scale, there is government debt: safe, reliable, suitable for widows and orphans. At the other end, there are junk bonds: speculative offerings issued by companies with poor credit ratings and suitable only for the young and reckless.

That picture looks a bit out of date. Speculation is rampant that Greece might be about to default on its government debt again. Meanwhile, the short-term bonds of many European countries are trading at negative yields. That means investors are guaranteed to lose money in nominal terms (ie, before accounting for inflation).

Junk debt also looks a lot less like garbage than it used to. Contrary to its reputation, issuers are proving to be reliable payers, as a new study by Deutsche Bank shows. Since 1983 (the period for which Deutsche has data), the default rate for junk bonds has averaged 4.9%. But that disguises a big change that occurred after 2002. The average default rate from 1983 to 2002 was 6.9%; since then, the average has been just 1.5%. In this later period, the only year in which the default rate was above the long-term average, at 15%, was 2009, when the world economy was slumping.

This is particularly surprising given that the creditworthiness of issuers has steadily declined over time, as judged by the rating agencies. A bigger proportion of them is in the "C" categories, the lowest tier for those that have not actually defaulted. This should, over time, have led to a greater number of deadbeats.

So what has driven the improvement? More than anything else, corporate debtors depend on confidence. They borrow not just from the bond markets, but also from the banks. When they get into trouble, it is usually because the banks will not extend their loans. And when that happens, they often struggle to keep up with their bond payments.

The result is that the corporate-bond markets can get into virtuous or vicious cycles. In the former, confidence is high and the spread (excess interest) paid by riskier borrowers is small. As a result, such borrowers find it easier to service their debts, bringing spreads further down, and so on. This has been the dynamic for much of the past 13 years.

The cycle has been reinforced by monetary policy. Short-term interest rates have been zero, or even negative in some countries, and central banks have also steered long-term government-bond yields to historic lows. That has prompted income-seeking investors to turn to junk bonds to add a bit of juice to their portfolios.

Ultra-low rates have allowed corporate borrowers to lock in cheap credit for the long term. Moody's, a rating agency, says that issuance of high-yield debt in America in the first quarter was $79 billion; in Europe it was $39 billion. Both figures are higher than in the same period of 2014. There was also a rise in the number of issuers borrowing for eight to ten years rather than the usual six or seven. The longer the maturity, the less vulnerable the borrower to a sudden decline in confidence.

An old lag

Source: Deutsche Bank

So what might trigger a shift into a vicious cycle, in which a loss of confidence leads to higher spreads, making it more difficult for companies to finance themselves? Deutsche reckons that the willingness of banks to lend depends on the shape of the yield curve—the difference between the rates available on short- and long-term debt.

When rates on long-term debt are much higher, banks earn a good return lending to companies. But as the gap narrows, or even turns negative, they lose their enthusiasm for lending. As they turn off the taps, many of the companies denied bank loans also end up defaulting on their bonds.

Deutsche's research shows that there is a lag of around 30 months between the yield curve becoming flat and a rise in defaults (see chart). Another important factor is the level of real rates (ie, after accounting for inflation). High real rates also lead to higher defaults with a 30-month lag. Based on these two factors, Deutsche predicts the next upcycle in American defaults will occur in the second half of 2017. In Europe, where there tends to be a shorter lead time, a rise may occur in the second half of next year.

Of course, investors in junk bonds can suffer losses without a sharp rise in defaults. If the general level of bond yields rises—perhaps because of an increase in inflation or a sudden change in monetary policy—the price of junk bonds will fall. But not many people are expecting that to happen. The enthusiasm for junk is not going away.

Economist.com/blogs/buttonwood

Varoufakis, Greece's finance minister, this week cautioned, "Anyone who says they know what will happen if Greece is pushed out of the euro is deluded."

Optimists argue that the euro zone is much better able to absorb a Greek shock today than it was in 2011. Banks are better capitalised and have virtually no exposure to Greece; quantitative easing is propping up bond and equity markets; and thanks to the weak euro, exports are much stronger. Many investors think volatility will be temporary, with stocks and bonds dropping before rebounding. If Greece defaults and people start selling off European stocks, just buy more, reckons Philippe Jabre, a veteran hedge-fund manager. "If we're wrong, it's an easy market to exit. If we're right, we can make a lot of money."

Some even argue that Grexit would do markets good by frightening other countries into accelerating reforms, reducing support for protest parties such as Podemos in Spain and giving twitchy investors the confidence that the euro zone can weather such a crisis. The contagion to worry about, Mr Jabre reckons, would come from Europe caving in to Greek recalcitrance, giving other countries an incentive to follow suit. ■

China's stockmarket

Skyward march

SHANGHAI

Efforts to stimulate the economy risk stoking an already blazing stockmarket

JUDGING by its stockmarket, China is awash in cash. Trading is so frenetic that on April 20th, volumes surpassed the limits of the software that tracks transactions. More than 1.1 trillion yuan ($180 billion) of shares swapped hands that day, but the Shanghai Stock Exchange's counter remained stuck at 999.99 billion. It is only a matter of time before this happens again. Investors are opening more than a million new trading accounts every week, chasing returns on a market that has doubled over the past year.

Despite this frenzy, the central bank acted this week to pump money into the financial system. By cutting the portion of deposits that banks must hold as reserves, it freed some 1.3 trillion yuan for new lending. Why inject cash when the stockmarket suggests China is not short of capital?

To be fair, the People's Bank of China (PBOC) does not target the stockmarket. Its mandate is twofold: to keep prices stable and to support economic growth. On both those counts, loosening monetary policy is the right call. The GDP deflator, a broad measure of inflation, slipped into negative territory in the first quarter, falling by 1.1% from a year earlier. Economic growth of 7% was in line with the government's full-year objective, but risks are blotting the horizon as factory production slows and the property market slumps. The authorities are more willing to tolerate slower growth than in recent years, but they are only willing to see growth slow so far. The PBOC's attempts to bolster the economy began with cautious cuts in interest rates in November. It is likely to keep trying until growth and inflation perk up.

Moreover, the stimulus is smaller than it seems. On the face of it, the cut in the required reserve ratio (RRR) to 18.5% looks like a big dollop of cash. The central bank normally adjusts the RRR in half-percentage-point increments. This time, it lopped off a full percentage point, its largest cut since late 2008, the nadir of the global financial crisis. However, the boost is smaller than it seems. It is in part intended to replace cash that has left China, not just to inject extra money into the economy. In the past China's money supply grew as the central bank printed yuan to buy up the foreign money streaming in from both trade and investment. But in recent months, capital flows have reversed, effectively draining cash from the economy.

A less-noted but possibly more potent boost to the economy is the pledge of Li Keqiang, the premier, to give extra money to China Development Bank. He did not announce a figure but it is likely to be at least 1 trillion yuan, according to state media. This will go towards the construction of public housing and infrastructure, giving a lift to investment as private-sector spending flags. By targeting funding in this way, the government is trying to avoid splashing money every which way, not least in the direction of the stockmarket.

It is also worth remembering that the stockmarket in China marches to the beat of its own drummer more than in most countries. From 2009 to 2013, when China was the world's fastest-growing big economy, its shares languished among the world's worst performers. Its stockmarket is still relatively small: even with the bull run, its total value is still barely 50% of China's banking assets, compared with 150% in America. This means that a big drop would have a less severe impact on the health of the economy. And the manic rally partly reflects a massive portfolio reallocation as savers shift money away from bank deposits and property into stocks.

Nevertheless, it would be unwise for regulators to turn a blind eye to the excesses. With a big jump in borrowing to buy shares, the stockmarket is beginning to affect broader financial stability. China needs to develop more mature capital markets so that firms can raise more money directly from investors, taking some of the burden away from banks. A wild stock rally followed by a crash, as happened in 2006-07, would be a grave setback.

Since looser monetary policy is the right medicine for the economy but a risk for overheated shares, the solution could be stricter regulation of the stockmarket itself. The government has so far taken only half-hearted steps to rein in speculation with borrowed money, for fear of sparking a sell-off. A tougher line is needed. More encouragingly, officials are close to approving reforms that will simplify the cumbersome approval process for firms that want to list on the stockmarket. That would allow the extra cash in stock-trading accounts to flow to new businesses, rather than into ever-headier valuations. ■

Financial regulation in America

Fed up

NEW YORK

A former central banker turns on his own kind

"NO ONE is happy," says Paul Volcker, a former chairman of the Federal Reserve, referring to the chaotic, overlapping and unaccountable sprawl of government agencies regulating America's financial institutions. This week a group of wise men he assembled released a plan to reshape it. He would like to abolish one agency, merge some others and provide some checks on the growing power of the one he used to run.

Mr Volcker concedes that the odds are against him. Since the second world war, he says, more than 25 attempts to overhaul the regulatory shambles have failed. Politicians, alas, tend to respond to flaws by creating new bodies, without abolishing the old ones. The Dodd-Frank reforms adopted in 2010 in response to the financial crisis, for example, created a new consumer-protection agency and a new committee to monitoring financial stability.

Dodd-Frank also gave more power to the Fed, expanding its role in bank supervision in particular. The Fed has become more involved in markets too; efforts to revive the economy through asset purchases hugely expanded its balance-sheet. Complaints about its meddling are legion.

In a small country, Mr Volcker says, a central bank can take responsibility for monetary policy, the drafting of regulations and the supervision of financial institutions. But he does not think that will work in America. The Fed, he fears, will become too unwieldy and too powerful.

Instead, he would largely confine the Fed to monetary policy and the drafting of new financial regulations. Supervision would be the responsibility of a separate entity, although the vice-chairman of the Fed would head it. To streamline oversight of financial markets, the Securities and Exchange Commission and the Commodity Futures Trading Commission, which patrol different bits of them, would be merged—a suggestion that seems prescient in light of the claim this week that a futures trader precipitated a plunge in the stockmarket in 2010 (see page 69).

The Volcker plan would also reconfigure the Financial Stability Oversight Council (FSOC), the new committee created by Dodd-Frank. One of its main jobs is to decide which financial firms should be designated as systemically important, and thus subject to particularly heavy regulation. Mr Volcker would allow the treasury secretary to continue to chair the council, but would also strip him of a vote, in a bid to strengthen its independence. By the same token, the bit of the Treasury that currently provides advice to the FSOC, the Office of Financial Research, would become an independent agency. The intention is to provide an alternative voice to an all-powerful Fed.

There are several gaps in the Volcker plan. The fate of many entities of dubious value, such as the regional Fed banks, remains unclear. More importantly, Mr Volcker is focused on improving the effectiveness and accountability of regulators, and thus the soundness of the firms they regulate. But many in Washington, DC are more interested in expanding the government's power over the financial world, thereby increasing its ability to steer money to politically desirable ends. When Mr Volcker said that no one was happy, he perhaps had not considered the politicians who set the system up. ■

Japan's stockmarket

Winged Nikkei

TOKYO

The Japanese are learning that the stockmarket can go up as well as down

VETERAN investors well remember the last time Japan's benchmark Nikkei index closed at 20,000, the sort of round number that pundits call "psychologically significant". It was in April 2000, and the Nikkei went on to shed more than half its value over the following three years. So it was unsurprising that the dominant emotions elicited by the news on April 22nd that the Nikkei had closed above that level were shock and some foreboding. Earlier in the month, as the index approached the threshold, the economy minister suggested that there might be a "small bubble".

For the non-Japanese buyers who normally dominate trading in Tokyo, the market presents a conundrum. In 2013 many of them piled into Japanese shares on hopes that Shinzo Abe, the new prime minister, would rid the economy of deflation by means of monetary easing. When the economy stalled last year, many sold their holdings. Scepticism about "Abenomics" remains. But Japan's stockmarket is one of the best-performing in the rich world this year in dollar terms; staying away is turning into a "pain" trade, says Peter Tasker of Arcus Research, a consultancy.

Local pundits, meanwhile, warn that the recent bull run could soon end badly. Since the Nikkei peaked at 38,916 in 1989, real or rumoured "price-keeping" operations by the government to stem its decline have become commonplace. In October the Government Pension Investment Fund (GPIF), the world's biggest public-sector investor, with ¥129 trillion ($1.08 trillion) under management, said it would put more of its money in equities, in line with global benchmarks. Over the past year or so, Japanese shares have gone from around 12% of its portfolio to an estimated 22%, sending a wall of yen into the stockmarket.

Other public pension funds are following the GPIF's lead. Meanwhile, state-owned Japan Post, which has a big financial-services arm, recently announced a plan to boost returns by investing in riskier assets (for which, read equities). The Bank of Japan, as part of its monetary easing, has been snapping up exchange-traded funds. When all this comes to an end, bears aver, the market rally could peter out.

The shift by state-owned investment funds has undoubtedly boosted prices, says Kathy Matsui of Goldman Sachs, an investment bank, but it has also made the government more exacting about corporate governance at the firms into which public pension pots are being sunk. Corporate profits have been rising strongly, especially among exporters benefiting from a weaker yen. Japan's first corporate-governance code, which will go into effect in June, and a stewardship code intended to improve oversight by institutional investors, are already prompting firms to return more profits to shareholders through buybacks and higher dividends.

Moreover, the Nikkei, points out Nicholas Smith of CLSA, a broker, is a simple average of share prices, not weighted by the size of the company. The Topix index, a broader, weighted measure, does not show shares on quite such a tear. It is still 12% below its last peak in mid-2007, although corporate profits have risen by 13% (see chart).

Yet it remains to be seen whether the government can make the stockmarket appealing to ordinary Japanese savers. It has had a dire record on corporate governance and, not coincidentally, emerging-market levels of volatility. All of that continues to deter Mrs Watanabe, the archetypal Japanese housewife who oversees the family finances, constraining bullish hopes. ■

Policing financial markets

Flash boy

The S&P 500 became semi-detached too

The curious case of the Hounslow day-trader

THAT America's stockmarkets dropped by 10% in a few minutes on May 6th 2010 was worrying enough, even if they did bounce back quickly. Worse still was the realisation that nobody understood why or how it had happened. After pointing the finger in various directions, American authorities have settled on an unlikely culprit: Navinder Singh Sarao, a 36-year-old British day-trader they now want to extradite to face an assortment of criminal and civil charges.

Market watchdogs would not have expected the source of the "flash crash", as it came to be known, to be a lone trader based in a nondescript semi-detached house in Hounslow, an unfashionable suburb nestled between central London and Heathrow airport. But they would be less surprised by the methods he is accused of using, most notably "spoofing", a common form of market manipulation.

According to the charge sheet, Mr Sarao would routinely place a series of orders to sell futures contracts that would only be profitable if the S&P 500 share index fell. The authorities claim that a computer programme he devised constantly tweaked the price of his orders to ensure he wasn't taken up on them. The effect, nonetheless, was to inject pessimism in the futures market, by making it look like lots of investors were expecting prices to drop. (Part of this bearishness spilled over into the stockmarket, causing shares to fall in price.) Mr Sarao, it is claimed, used this as an opportunity to buy cheaply. Merely cancelling the sell orders would then have caused prices to perk up again.

Regulators have long tried to stamp out spoofing. But it is hard to prove that an offer that is subsequently withdrawn was made in bad faith. High-frequency traders, some of them billion-dollar outfits, spew out and retract many buy and sell orders every millisecond. Mr Sarao himself, in previous dealings with the Chicago Mercantile Exchange (CME), where he placed his trades, denounced "mass manipulation [by] high frequency nerds"—before telling his broker he had called the exchange "and told 'em to kiss my ass" on a compliance matter.

Mr Sarao appeared in court in London on April 22nd, but only to fight extradition. The American authorities claim he made a profit of just $879,018 from the trades linked to the flash crash—a pittance compared to the upheaval caused—though perhaps $40m from subsequent manipulation. Awkwardly, he funnelled his profits from trading to a firm called "Nav Sarao Milking Markets Limited", based in Nevis, a Caribbean tax haven, although he has no obvious ties to the dairy industry.

Why Mr Sarao's continued use of similar trading strategies did not cause markets to convulse again is not clear. Nor is it established that he was the sole cause of the S&P's swoon, as the American complaint in effect concedes. It claims he was "at least significantly responsible for the order imbalance that in turn was one of the conditions that led to the flash crash". That leaves plenty of blame to go around.

Regulators had previously thought a mega-investor such as a mutual fund must have had a hand in the mysterious event. Some favoured the theory of the "fat finger trade"—a mammoth but unintended sell order. Plenty think the widespread use of automated, lightning-quick trading algorithms made matters worse, at the very least. Many computers befuddled by whiplashing markets stopped trading, leading to a liquidity crunch, itself a source of volatility.

That Mr Sarao might be even partly to blame will only add to the alarm the flash crash engendered. Many will ask how a single day-trader could possibly have been allowed to generate $200m of selling orders, over a fifth of the daily volume in the contract he favoured, during a period of known market convulsion without having been blocked by one party or another. The financial watchdogs will also have questions to answer. The most pressing of them will be, if a trader from Hounslow can cause the S&P 500 to crash, who or what else could do the same—or worse? ■

Active v passive investing

Hyped active

More doubts about fund managers' stock-picking powers

THE rise of low-cost index-tracking funds over the past 40 years has put active fund managers—those who claim the ability to pick the best shares—on the defensive. Figures from Morningstar show that the majority of fund managers in the American market beat the index in just five of the past 20 years.

But papers published in 2009 and 2013* seemed to give the industry hope. All fund managers are not equal, the research claimed. Those who assemble portfolios that closely resemble the index are doomed to underperform, because of costs. However, managers who take more daring bets by veering a long way from the index—the academic term is having a high "active share"—are able to outperform. Since then, fund managers have been using a high active share as a marketing device.

That argument is challenged by a new paper** from AQR, a fund-management group that specialises in quant (mathematically-based) strategies. It finds that fund managers who did well on the "active share" measure were actually just following a different benchmark: they tended to be focused on smaller or mid-sized firms, rather than the Exxons and Apples that dominate the S&P 500.

When AQR sorted funds relative to 17 other American indices, those with a high active share outperformed eight of them, but underperformed the other nine. The authors conclude that active share "does not (and should not be expected to) predict performance and that investors who rely on it to identify skill may reach erroneous conclusions".

In a sense, this is hardly surprising. By definition, the average investor cannot beat the index after costs; managers with a high active share who outperform a lot will be offset by those who underperform by a large amount. But in one respect, all three papers agree: paying high fees for poor performance is a bad bet.

* "How active is your fund manager?", by Martijn Cremers and Antti Petajisto, 2009; and "Active share and mutual fund performance", by Antti Petajisto, *Financial Analysts Journal*, July/August 2013
** "Deactivating active share", by Andrea Frazzini, Jacques Friedman and Lukasz Pomorski, 2015

Free exchange | Scrip tease

Greece could alleviate its shortage of cash by issuing IOUs, but only for a time

FOR the third time in five years, Greece is looking into the abyss. As in 2010 and 2012 the Hellenic Republic looks likely to run out of cash, and may soon miss scheduled debt repayments. But this time Syriza, Greece's new ruling party, has alienated its creditors, making the previous solution (a co-ordinated default, coupled with a bail-out) harder to achieve. Yet a unilateral default might prompt the European Central Bank to withdraw its lifeline from Greece's banks, leaving the country little choice but to abandon the euro—an outcome 84% of Greeks want to avoid. As Syriza scrabbles around for alternatives, a monetary trick sometimes used in such emergencies—issuing temporary IOUs, or "scrip", in lieu of cash—is starting to look tempting.

Scrip can help governments conserve hard cash, something Greece certainly needs to do. It has debts of around €315 billion ($340 billion)—175% of GDP—and must make payments of €2.5 billion before the end of June. To find that cash it could start making some of its regular payments in paper IOUs, which can be used to pay taxes at a later date, rather than euros. The bulk of the Greek state's annual outgoings of €80 billion is paid to its citizens—€22 billion in salaries, €35 billion in benefits. They would have little choice if the government decided to pay them in scrip instead of euros. If all government salaries had been paid in scrip last year, the country would have had a surplus of €27 billion euros, leaving plenty to pay back foreign creditors. Scrip itself would soon become a means of exchange.

Scrip has a rich history. Massachusetts paid its citizens "tax anticipation notes" instead of cash in the 1690s, according to a paper* by Richard Sylla of the Stern School of Business at New York University. These were swapped for cash once the anticipated tax had been collected. California used scrip in 2009. The recession had sapped revenues, and bickering legislators could not agree on a revised budget. The state began to pay benefits, tax rebates and other bills in "registered warrants" rather than dollars. In all, it issued 450,000 IOUs with a value of $2.6 billion.

California made the scrip more palatable by promising to pay annual interest of 3.75% on it. This persuaded some recipients to hold on to it, meaning that Californian residents were, in effect, lending to the state. For those who wanted cash, local banks initially agreed to exchange the scrip for dollars, thereby acquiring the right to the interest due. Within two months the budget impasse was over and the scrip was redeemed. That was only just in time: the big banks, worried about their growing exposure to the scrip, had stopped buying it.

Greek scrip would face bigger problems. California's economy is eight times the size of Greece's and its decent credit rating lent its IOUs some credence. A better analogue for Greece, which has an unemployment rate of 26% and a reputation for default, is Argentina. In 2001 the Argentine government, struggling to service its debts, started paying its citizens by issuing a tax voucher, the *lecop*. The country's provinces began to pay salaries and pensions in scrip. According to IMF analysis the value of these new quasi-monies rose to 7.5 billion pesos ($2.4 billion) by the end of 2002, or around 50% of the value of pesos in circulation.

Argentina's experience was much less encouraging than California's. One problem was the proliferation of scrips: there were soon a dozen of them, including Buenos Aires's *patacon*, Corrientes's *cecacor* and Formosa's *boncafor*. That made trade between provinces difficult. What is more, Argentines spent scrip of any sort as soon as they could, and hoarded pesos.

Centuries of experience suggest that such a response is typical. In the 16th century Sir Thomas Gresham, an English financier, argued that if a country had two types of coin made of different alloys but with the same face value, the one containing more precious metal would cease to circulate. Citizens would spend the "bad" coins, and hoard the "good" ones. "Gresham's law"—that bad money chases out good—applies to paper cash too. Shikuan Chen of Taipei University cites paper IOUs issued by China's government in 1287 with a face value of a fixed number of silver coins. The people responded by hoarding coins, so the paper drove the coins out of circulation.

The euro, terminated

The history of scrip suggests two problems if Greece resorts to it. In Argentina, the rise of scrip helped undermine the public's confidence in cash in general. A system of national bartering based on an informal token, the *crédito*, blossomed. This system was created at a local level by merchants, not by the cash-strapped state. And rather than lift the government's revenue the informal cash made it tougher to track income and profits, and thus harder to calculate and collect taxes. The euro area has small-scale informal currencies: Bavarians with misgivings about the soundness of the euro, for instance, can use the *chiemgauer*; Bremen has the *roland*. It would be ironic if Greece issued scrip to get around a revenue shortfall, only to find that scrip exacerbated the problem.

The second problem is bigger. Since any Greek scrip would clearly be less desirable than euros (it would be accepted by the Greek government for tax payments, but could not be used to buy foreign goods or services), Gresham's law would apply. If Greek banks accepted scrip, they would soon be flooded with it and drained of euros, making it hard to pay the interest on their own debts. Scrip would have solved the state's euro shortage, but only by shifting it to the banking system. So scrip is no silver bullet. It might be a way to buy Syriza a few months breathing-space, but the only long-term solution to the cash crunch is the tough one: the state must earn more euros and spend fewer. ■

* Studies cited in this article can be found at www.economist.com/scrip15

Economist.com/blogs/freeexchange

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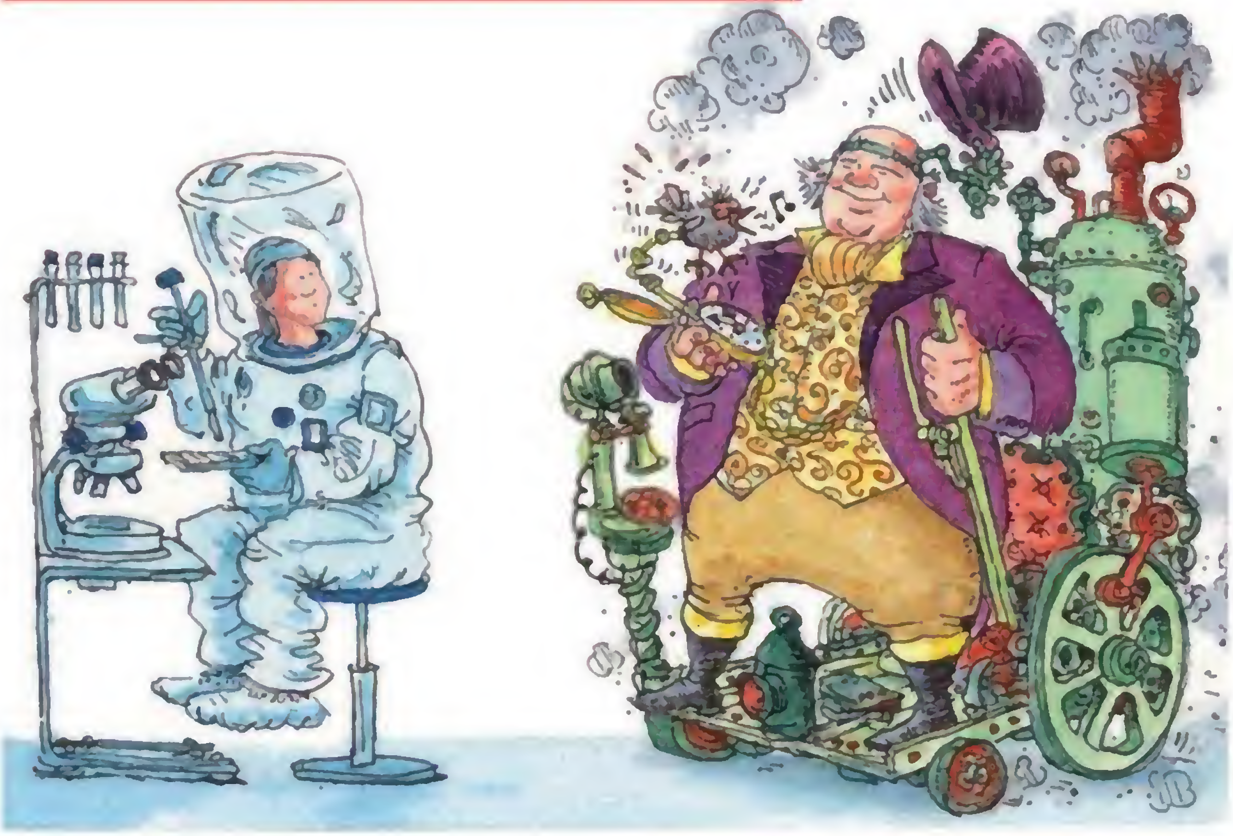

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The process of invention

Now and then

Patent records reveal that the way inventions are made has changed over the years

IN THE 19th century, inventors were heroes. The likes of Stephenson, Morse and Goodyear were the shock troops of the Industrial Revolution. Their ideas helped drag humanity from agrarian poverty to manufactured plenty. These days, though, inventor-superstars, while not absent, are fewer and farther between.

That may, in part, be because the process of invention has itself changed since the 19th century. There is no let-up in the growth of the number of patents issued each year, but the introduction of fundamentally new classes of technology seems rarer now than it was in the past. Information technology has certainly transformed the present day. But railways, the electric telegraph, photography, fixed-line telephony, the automobile and the chemical and steel industries each, separately, brought about transformations as big as anything IT has wrought so far. Perhaps the process of invention really was more heroic in Victorian times.

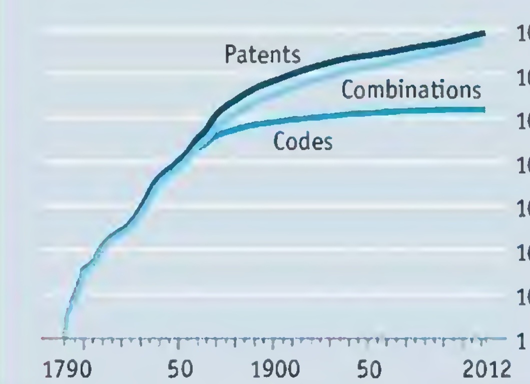
To have an impression that something has changed is not, however, to prove that it really has. For that you need data. And, in a paper just published in the *Journal of the Royal Society Interface*, Youn Hyejin of Oxford University and her colleagues have provided some.

Invention can come about in two ways. Thomas Edison's light bulb, for example, was not so much the product of a metaphorical light-bulb moment of discovery as of the bringing together of pre-existing components—an electricity supply, a heated filament, a vacuum and a glass envelope. None of these things was novel in the 1870s, but in Edison's hands the combination became a patentable invention. In contrast, William Shockley's transistor, invented 70 years later, involved a lot of new physics that Shockley and his colleagues had to work out for themselves. Both devices changed the world, though (Shockley's was the foundation on which IT was built). And together they exemplify the two sorts of novelty that exist, in differing proportions, in any successful invention: discovery and recombination.

Dr Youn has looked at the balance between these things, and how it may have changed. She drew her data from the United States Patent and Trademark Office (USPTO)—not a perfect indicator of inventiveness, but probably a fair proxy for it. The authorities there sort patent documents into groups based on common subject matter. To do so, they classify the various technologies responsible for an invention's novelty using an elaborate arrangement of codes.

Combine harvester

US patents, technology codes and technology code combinations, log scale



Source: *Journal of the Royal Society Interface*

Each subject grouping in USPTO's scheme includes a major component called a class and a minor one called a subclass. A class distinguishes one technology from another. Subclasses delineate processes, structural features and functional features of the technology in that particular class. A class-subclass pair—say, 136/206 for class 136 (batteries: thermoelectric and photoelectric) and subclass 206 (solar energy type)—is a unique code, and every patent is identified by at least one such code. The office has records of these codes going back to 1790. Overall, those records cover 474 classes and more than 160,000 codes. Only when a patent proposal arrives that cannot be slotted into the existing classification is a new one created.

When Dr Youn and her colleagues examined the patent office's files they found that nearly half the patents issued by the United States during the 19th century were for single-code inventions. These days, by contrast, nine-tenths are for inventions that combine at least two codes. The number of codes and the number of patents both grew exponentially, at the same rate, until the 1870s (about the time of Edison's light bulb; see chart). After that, the growth rate of new codes fell off dramatically, and that of new patents slightly. The introduction of new combinations of codes has, however, continued to expand in step with the number of patents awarded. That suggests invention now proceeds mainly by ▸▸

recombining existing technologies and chimes with the idea that inventions were, in some sense, more fundamental in the past than they are today.

This combinatorial explosion no doubt partly reflects the fact that the number of possible combinations grows faster than the number of codes they are based on. But that it has actually happened had not, previously, been demonstrated.

What remains to be seen is whether biotechnology will change things. Most inventions up until now have been based on physics or chemistry. Today's understanding of biology, though, is roughly where that of the physical sciences was in the 19th century. Biology is therefore ripe to yield a clutch of new patent classes—possibly for things (neurological computers? furniture grown from seed?) as unimaginable to present-day folk as the telephone would have been to a soldier at the battle of Waterloo. Then, perhaps, a new generation of heroic inventors will emerge. ■

Road safety

Driven from distraction

How to save phone-using motorists from themselves

HUMAN beings are a distractible bunch, and their propensity to be elsewhere, mentally speaking, is particularly dangerous when they are motoring. Attempts to deal with this go back a long way. In 1952, for example, the Garden State Parkway in New Jersey was fitted with the first rumble strips, which are bits of corrugated concrete that alert an inattentive driver with a rattle and a hum if his vehicle starts to drift off the carriageway while he is, say, paying too much attention to the radio.

Today, though, there is more than just his favourite DJ to distract a driver. When American motorists are surveyed, two-thirds of them admit to using mobile phones while driving. Bans on doing so have had mixed success.

The problem is worst among teenagers, already a high-risk group behind the wheel. A study published in March, by the American Automobile Association, a motoring club, reviewed nearly 7,000 videos of teenage drivers who had had monitoring cameras put into their cars between 2007 and 2013 in exchange for cheaper insurance. That analysis found that distraction was a factor in 58% of crashes—four times the figure estimated for this age group from accident reports compiled by the National Highway Traffic Safety Administration. Phone use was the second-greatest contributor to accidents. (Interaction with passengers was top.)

Help may be at hand, though. Research presented on April 20th at the Conference on Human Factors in Computing Systems in Seoul, South Korea, by Kim SeungJun, Chun Jaemin and Anind Dey of Carnegie Mellon University, in Pennsylvania, shows that yet more technology can ameliorate the problem—not by precluding the use of phones, but by minimising the distraction they cause to drivers of all ages.

Got a second?

Dr Kim, Dr Chun and Dr Dey recruited 25 volunteers, aged from 19 to 69, to make road trips about 20km long. Every volunteer wore five motion sensors—one on each wrist and foot and one on his head—as well as a chest strap that recorded his breathing and heart rates. The car was fitted with an inward-looking camera to observe the volunteer's "peripheral actions" while driving, such as eating, fiddling with the radio, turning on the windscreen wipers and steering one-handed. A second camera faced outward, to assess the state of nearby traffic. And a "black box" recorder took readings from the car itself, such as the throttle position, slope of the road and engine speed.

From the resulting mountain of data, the three researchers were able to work out the conditions that stressed drivers most (increasing their heart rates or causing them to hold their breath briefly), and also those that pertained when a driver undertook a peripheral action. Taking such actions, in the view of the researchers, meant that drivers had a bit of cognitive capacity going spare at that moment and might thus be interrupted with reasonable safety to, say, listen to a voice translation of an incoming text message.

Obviously, the average driver is not going to want to wear body sensors all the time. But as the team reported to the conference, they have used the data they collected to write a piece of software which can, based on inputs from the black box alone, identify the safest moment for an interruption from a phone with 92% accuracy. Moreover, Dr Kim says, a future version of the software could be tweaked to add in personal preferences. One driver might prefer to be interrupted when on a straight, flat road, for example. Another might like to wait until he was stopped at a red light.

Dr Kim, Dr Chun and Dr Dey are not the only people studying the problem of driver distraction. Jeff Greenberg, a technologist at Ford in Dearborn, Michigan, is working on a "driver workload manager" that will, for example, delay low-fuel warnings for a few moments if sensors detect the person at the steering wheel is busy with other things.

Another approach is to integrate phones better with a car's other controls. Manufacturers such as Citroën, Ford and Volvo have already added phone controls to the touchscreen which regulates the vehicle's air conditioning, navigation system and so on. One improvement in Mr Greenberg's sights is voice control, extending the limited set of tasks that existing speech-recognition software on smartphones can accomplish. Asking the car to place a call, find a particular song on YouTube or read a WhatsApp message aloud beats fiddling with a handset and lets the driver keep his eyes on the road. Google and Apple, authors of the two most widely used smartphone operating systems, are both developing software, called Android Auto and CarPlay respectively, to do that.

Moreover, even low-tech approaches still have a part to play. In 2011, the Governors Highway Safety Association, a state-level road-safety watchdog in America, released a report on distracted driving. Among its first recommended countermeasures was the humble rumble strip. ■


My dear, I hear there's an app for that

Orbiting debris

Char wars

How to clean up space by shooting down bits of junk

SPACE, as the late Douglas Adams pointed out, is very big. But the bit near Earth is also very crowded. Half a century of rocket launches has turned the high frontier into a junkyard. Around 3,000 tonnes of empty rocket stages, defunct satellites, astronauts' toothbrushes and flecks of paint are thought to be in orbit.

Besides being messy, such debris can be dangerous. Anything circling Earth is moving pretty quickly, so collisions between space junk and satellites can happen at closing velocities of 10km a second or more. Large bits of junk are routinely tracked by radar. The International Space Station (ISS), for instance, regularly tweaks its orbit to avoid a particularly menacing piece of litter. But at such high speeds, even a small, hard-to-follow object can do tremendous damage.

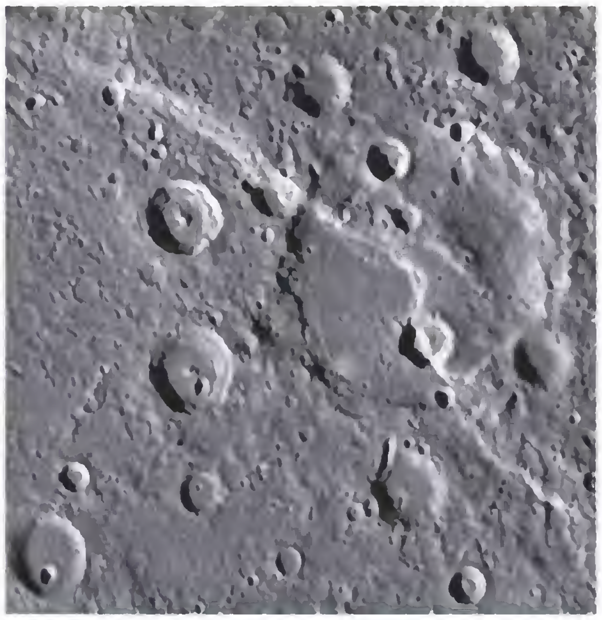
Rocket scientists have been pondering how to deal with this problem for years. But a paper just published in *Acta Astronautica* by Toshikazu Ebisuzaki and his colleagues at RIKEN, a big Japanese research institute, has gone further and proposed actually building a test device.

Like all the best ideas, Dr Ebisuzaki's plan involves zapping things with lasers. He proposes to point these lasers in the right direction using a telescope intended for a different job entirely. This is the Extreme Universe Space Observatory (EUSO). It is designed to be bolted on to the ISS. From that vantage point it will monitor Earth's atmosphere, looking for showers of radiation caused by cosmic rays hitting air molecules. Dr Ebisuzaki, however, realised that the characteristics of a telescope designed for this job—namely a wide field of view and the ability to register even fleeting flashes of light—would also be well-suited for spotting small bits of debris as they whizz past the ISS.

Having identified something, the next step is to get it out of orbit—and that is where the zapping comes in. Shining a sufficiently powerful laser at something will boil away its surface. The resulting jet of vapour will, as Newton's third law of motion requires, cause an equal and opposite reaction on the object it came from, pushing that object away. Fire a laser head-on at a piece of space debris for long enough, then, and you can slow it down to the point where its orbit will decay and it will burn up in Earth's atmosphere.

This idea is not new. But putting lasers into orbit is tricky. Those powerful enough to do the job need lots of electricity and this is hard to deliver with the solar panels from which satellites typically draw their power. Dr Ebisuzaki proposes instead to employ a new, more efficient laser called a coherent-amplification network device, which was developed for use in high-energy physics.

He and his colleagues suggest a three-stage test. The first, with a smaller version of the EUSO and a fairly weedy laser, would serve as a proof of concept. The second would use the actual EUSO telescope and a much more potent laser. Finally, he says, the equipment could be mounted on a purpose-built satellite, from which it would be able to shoot down tens of thousands of bits of space junk every year, thus gradually sweeping the skies clean. ■



Planetary science

Killing the MESSENGER

A mission to Mercury is about to end with a bang

NASA has an undoubted talent for space flight. It also has one for awkward acronyms. A classic of the genre is MESSENGER, the name it has given to a probe currently orbiting Mercury. This is a contrived nod to that god's role in the Roman pantheon, and stands (allegedly) for MErcury Surface, Space ENvironment, GEochemistry and Ranging.

Mercury is the innermost of the solar system's eight planets and was, until MESSENGER's investigations, mysterious. Its only previous visitor was *Mariner 10*, another NASA probe, which made three fly-bys in the early 1970s. These revealed a world that looked like a hotter version of the Moon (which is only slightly smaller than Mercury), with a surface covered in craters scorched by the nearby sun.

Mariner 10's visits threw up several puzzles. One was the presence of large escarpments (like the gash crossing the landscape in the picture) all over Mercury's surface, which led researchers to speculate that the planet might be shrinking, causing its crust to shrivel like the skin of a dried orange. Another was that Mercury has a magnetic field. That was perplexing because Mercury's rotation ought to be too slow to generate such a field. Moreover, the planet is surprisingly dense, leading to speculation that it is the remnant of a metallic planetary core whose overlying mantle was blasted away in a gigantic collision similar to the one that, perhaps, tore the Moon from the young Earth.

MESSENGER was designed to clear up these questions. On arriving in orbit around Mercury in 2011, it began making detailed maps of the planet's entire surface (*Mariner 10* had been able to see only part of this surface). Astronomers now believe Mercury has indeed shrunk, losing about 14km of its diameter since its formation. The magnetic field is thought to arise from the flow of liquid iron in Mercury's core, which is kept hot by gravitational kneading from the sun.

The probe also found convincing evidence for widespread, recent volcanic activity (recent, at least, by astronomical standards; the newest Mercurian lava might be around a billion years old, compared with 4.5 billion years for the planet itself). And MESSENGER concurred with what Earth-bound radio surveys had suggested—that, despite Mercury's proximity to the sun, large quantities of ice survive at its poles. This frozen water is protected from solar heat by the perpetual darkness of the shadows cast by the walls of craters there.

Perhaps the most surprising find was that Mercury is rich in "volatiles"—elements such as sulphur, potassium and chlorine. This is hard to reconcile with the theory that Mercury suffered a planetary prang early in its life, because the collision should have boiled such elements away.

Solving that mystery, though, will be a job for another probe, for MESSENGER's mission is at an end. Its dwindling fuel reserves will soon be unable to keep it in a stable orbit. Dragged ever down thereafter by the effect of the sun's gravity, it is expected to crash on April 30th.

Even in death, however, it will make a contribution to science. Its impact will gouge a 16-metre hole into the planet's surface. By monitoring this fresh crater, researchers will be able to watch the process of space weathering—the erosive effect of radiation and tiny meteorite strikes—in action. Such weathering darkens craters, and another space probe, *BepiColombo* (a joint European-Japanese mission that is scheduled to arrive in 2024), will be able to measure how dark the crater that marks MESSENGER's grave has become, and thus how fast space weathering happens. ■

Biotechnology and fish farming

Gas guzzlers

Feeding farmed salmon with protein made from methane

SOMETHING called *Methylococcus capsulatus* might not sound an appetising ingredient for a meal. *Methylococcus* is a methanotroph, a bacterium that metabolises methane. Fortunately, salmon are not fussy eaters. They will happily consume pelletised protein made from these bugs. And that could be handy for fish farmers—at least it will be if Alan Shaw, boss of Calysta, a biotechnology firm in Menlo Park, California, has anything to do with it. For Dr Shaw proposes to take advantage of the rock-bottom price of methane, a consequence of the spread of natural-gas fracking, to breed *Methylococci* en masse as a substitute for the fish-meal such farmers now feed to their charges.

The idea of using methanotrophs as fish food was invented by Statoil, a Norwegian oil and gas company. Calysta bought the technology in 2014, and has been refining it since then. Crucially, from a business point of view, the EU and Norway have already approved the use of *Methylococcus*-based fish food. Though America has yet to follow suit, this means there is a large available market for the stuff.

Normally, when developing a bacterium-based biotechnology, the researchers involved modify their bug's genes to increase yields. Dr Shaw has eschewed that path because of the fears (irrational, but nevertheless not conducive to business) that genetic modification provokes. Instead, Calysta has concentrated on making the lives of its bacteria as comfortable as possible. The internal geometry of the reactors in which they live is designed to keep them in constant contact with enough methane to grow, enough air to respire and enough ammonia to provide the nitrogen which, along with the carbon and hydrogen in the methane, is a fundamental building block of the amino acids from which proteins are made.

Nor are the *Methylococci* alone. The reactors actually contain a mini ecosystem that includes other species of bacteria, known as heterotrophs, which mop up metabolic products that would otherwise slow *Methylococcus*'s growth. These products are mostly the result of *Methylococcus* consuming things other than methane (ethane, propane and so on) that are minor components of raw natural gas. Adding heterotrophs to the mix means Calysta can be less fussy about exactly which sources of natural gas it uses to feed its bugs.

At the moment, the world produces about 5m tonnes of fish-meal a year, a number that has been constant for four decades and is limited by the size of the Earth's fisheries. Demand, however, is growing at 6-8% a year, putting pressure on prices. This has led some fish farmers to adopt soya-based substitutes. These, though, can inflame the fishes' guts. That, Dr Shaw says, is not a problem with Calysta's product.

Dr Shaw seems confident Calysta's system, which should turn out more than 8,000 tonnes of bacterial fish food a year per reactor, can do so at a cost well below the $2,000 a tonne at which fish-meal now sells—and that it will be available commercially by 2018. If this comes to pass, not only will it help fish farmers, but it may also relieve pressure on wild fish stocks in the world's oceans. ■

Dinosaur sexes

Identity plates

How to distinguish lady and gentleman stegosaurs

IN MANY living species, the sexes look different from one another. Presumably that was true in the past, too, but knowing for certain is hard because pigments and soft tissues that might be sexually dimorphic are rarely preserved in fossils. Among dinosaurs in particular, even the durable fighting parts more usually sported by males than females have proved a disappointment to those seeking dimorphism. Famously horned dinosaurs such as *Triceratops* show no convincing evidence of such differences. Only the hadrosaurs, with their distinctive cranial crests (now known to have been horns of an acoustic rather than a combative variety), seem to differ between males and females.

If Evan Saitta of Bristol University, in England, is right, however, another well-known dinosaur was indeed sexually dimorphic. Mr Saitta has been investigating *Stegosaurus*, a Jurassic beast that sported rows of bony plates on its back. He worked on one particular species, *Stegosaurus mjosi*, of which five specimens have recently been unearthed in Montana to join the half dozen previously known. These finds show that *Stegosaurus* plates come in two shapes: broad, oval ones and tall, narrow ones about a third smaller than the oval ones. Mr Saitta's study, just published in PLOS ONE, nails down the question of whether the different sorts of plate were sported by different sexes.

You mean you can't tell?

Mr Saitta worked on the Sherlock Holmes principle of eliminating the alternatives and seeing what remained. One obvious possibility is that the two plate types belong to separate, similar species. Recent work showing that *Brontosaurus* and *Apatosaurus*, long thought to be different names for the same thing, are actually different animals, demonstrates the difficulty of separating dinosaur species. However, the fossils in Montana were jumbled together in a way that suggests they succumbed simultaneously, and *in situ*, to whatever killed them, and were thus a group in life as well as death.

Another possible explanation is that the plates changed shape as an animal aged. That seems unlikely, though, since both shapes are known from what appear to be mature stegosaurs. Nor is it the case that any known fossil had both sorts of plate.

A final suggestion is that there are not really two sorts of plate at all. Perhaps the oval ones and the pointed ones are simply two ends of a spectrum. Mr Saitta excluded this idea using a statistical technique called principal-component analysis. This showed that all known plates cluster into one of the two groups, with no intermediate forms.

What is left, then, is the conclusion that *Stegosaurus* plates really were different from one sex to the other. But it is impossible to know which plates belonged to which sex. Mr Saitta's guess is that the large, oval ones were male, because sexually selected features in modern animals tend to be bigger and showier in males than in females. But unless a *Stegosaurus* specimen with eggs inside her shows up, the true answer may never be known.

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Asia's environment

In need of a green revolution

How business can help solve Asia's environmental problems

The Greening of Asia: The Business Case for Solving Asia's Environmental Emergency. By Mark Clifford. *Columbia University Press; 306 pages; $29.95 and £19.95*

THE Asian economic miracle has lifted millions out of poverty, but at terrible cost. Deforestation and foul water are just two of the insults to nature resulting from breathless expansion. Air pollution in Beijing has been described by the American embassy as "crazy bad". Asia is one of the biggest contributors to global warming.

Many blame economic growth, and the market forces and corporations that drive it, for this. So it is refreshing to see a clear-headed argument set out by Mark Clifford, a former editor-in-chief of the *South China Morning Post*, that markets and greenery can go together. Asian companies, he says, are ready to clean up.

Three conditions need to be met first. One is public engagement. In China a powerful independent documentary on pollution, "Under the Dome", was viewed online by about 200m people before it was blocked by the authorities. From Korea to Kalimantan, the hyperactive use of social media by ordinary people is becoming a force for change.

The second factor is regulation. Richer countries in the region have cleaned up using policies such as emissions standards and road-congestion pricing. Mr Clifford praises the science-based approach that Singapore has taken to making buildings more energy-efficient. The campaign started modestly in 2005. By late 2013, it had increased the number of efficient buildings from 17 to nearly 1,700—about a fifth of the total building stock. The goal is to have four-fifths of buildings certified as green by 2030, with annual savings of $1.26 billion.

Most of the region's other governments are laggards, though. Mr Clifford gives many examples of how the mispricing of resources leads to inefficiency and environmental harm. In China "land, labour and capital are all underpriced for its favoured industries," he writes. Energy and water are used much more wastefully than if these resources were priced properly. Free electricity for farmers in India has led them to run "ever-deeper pumps that deplete water sources". He contrasts poor government policy with progressive business efforts. Esquel, a Hong Kong textile firm, helps cotton farmers in Xinjiang, an arid Chinese province, fund water-saving drip-irrigation systems.

The author offers a sophisticated critique of China's efforts to create green champions in renewable industries. The government's willingness to spend money without concern for profit has benefited the environment. China invested $125 billion in clean energy in 2012 and 2013, he calculates, considerably more than the $101 billion that America spent. It is now the world's largest manufacturer of wind and solar equipment; soon it will be the largest consumer of clean energy too.

But China's approach also has deep flaws. Central planners could not stop local governments from lavishing subsidies on favoured local firms, so the country ended up with far too many manufacturers scrapping for business. The resultant wars sent Suntech, once the world's biggest solar outfit, into bankruptcy.

The author makes a powerful case for phasing out all perverse subsidies, and for introducing muscular regulation that uses a mix of incentives and punishment to encourage green growth. America offers a good example: a successful trading system for sulphur-dioxide emissions solved America's acid-rain problem by providing polluters with strong incentives to clean up; they could sell credits in the marketplace for a profit if they cleaned up beyond the minimum required by regulation.

The third element is the private sector. Unscrupulous companies deserve as much blame for the current mess as do lousy policies. However, this picture is changing fast. Leading Asian businesses are going well beyond regulatory requirements, showing that sustainable business practices can be profitable, too.

The Kadoories, a family of Iraqi Jews who landed in Hong Kong in 1880, are a good example. Best known for the Peninsula luxury hotels, they also control CLP Holdings, one of Asia's largest energy companies. It owns mostly coal plants, making it one of the biggest polluters on the planet. A decade ago, sensing growing public concern and anticipating future regulation of carbon, the Kadoories took some radical decisions. The company vows to slash the carbon intensity of its power-generating businesses by more than three-quarters by ▸▸

2050. By 2013 it was the biggest foreign investor in clean energy in China, and the biggest windpower developer in India.

Nor is CLP an isolated example. As Mr Clifford shows, companies like Hyflux, a Singaporean water-treatment and desalination firm, and Goldwind, a wind-energy titan in China's far west, prove that innovative firms are helping to reverse decades of degradation. Manila Water provides three times as many people with safe and reliable supplies after privatisation as the government did before, at a fraction of the price. Infosys, an Indian outsourcing giant, is on its way to getting half its energy needs from renewables. As Mr Clifford writes: "It is well-run businesses that have the manpower, the money and the knowledge to reshape Asia's approach to the environment." There's hope, then, for the future. ■

Early flight

Heavens above

The Wright Brothers. By David McCullough. *Simon & Schuster; 320 pages; $30*

THE journey from nutter to genius can be short. For Wilbur and Orville Wright, inventors of the aeroplane, it took just 12 seconds. In 1903 their 605-pound (274-kilo) contraption, dubbed the "Flyer", lifted off the sand dunes of North Carolina and stayed aloft just long enough to make history. Elated, the brothers quickly learned to go farther, higher and faster.

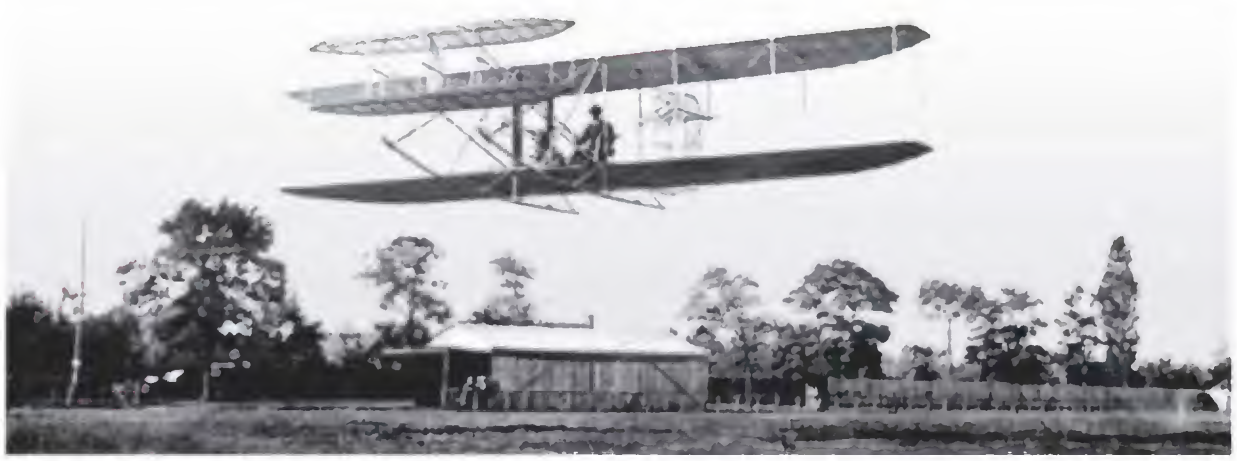
The Wrights broke through against great odds, as David McCullough recounts in this enjoyable, fast-paced tale. Neither had any formal engineering training. They ran a bicycle shop in Ohio and decided to build an aeroplane after reading up on gliders. Having studied books and birds, they constructed first a glider, then a motor-powered craft, to test in the windy Carolina dunes. They worked with deliberation, taking time to master the basics of flying (such as how the wind works) and spurning pointless risk. Proceeds from the bike shop funded their efforts.

Scepticism was intense. Plenty of people dismissed the notion that man could fly at all. Just a handful watched the historic first flight, which Orville, the pilot, described as "an uncertain, wavy, creeping sort of a flight at best". An unfortunate element of this tale was the apathy of the American government, which poured money into a different, failing machine and batted away the Wrights' overtures. (As a result, the brothers lost valuable time between 1905 and 1908 as they scurried to sell their invention elsewhere.) Even the media paid little heed. When the Wrights tested a plane in their Ohio hometown of Dayton, after their successful efforts in North Carolina, the *Dayton Daily News* ignored the story.

Eventually, though, they got their due. Europeans were keen, even as the Americans shrugged. So the brothers and their helpers packed off their craft to France, where Wilbur eventually performed a test flight lasting close to two minutes in 1908 and won over the doubters. "He is not a bluffer," one Frenchman declared. The French loved Wilbur's modesty and unpretentiousness, and the way he carefully inspected every wire and strut on his aeroplane. Wilbur feared to let anyone touch the machine, and at one point slept in a shed to guard it.

This sentimental approach is at the heart of the book. "The Wright Brothers" lacks the heft of Mr McCullough's two Pulitzer prize-winning works, on the American presidents John Adams and Harry Truman. He skims past the complexities in the service of a fun, fast ride. Why did Orville, who outlived his brother by decades, shun his sister Katharine (who had nursed him back after a nasty aeroplane accident) after she married? Why did the aviation field develop so quickly in the early 1900s, and why was France so especially keen to be involved? Also mentioned only briefly is the legacy of the Wright brothers' aeroplane company. It lives on as the Curtiss-Wright Corporation, an industrial technology specialist, though its aircraft-making heyday was many decades ago.

Perhaps the Wright brothers' most significant achievement was that neither died in flight. Recognising the danger, Wilbur and Orville never flew together until 1910, years after their debut, in the interest of preserving one brother's life. They had a few crashes, one of which killed a passenger. But by 1909 Wilbur was confidently piloting a craft around the Statue of Liberty (albeit with a canoe underneath lest he fell into the water), and Orville soared above 2,700 feet (820 metres) in 1910. The first Flyer and its successors excelled because the brothers were so careful. These are fine things to daydream about next time you take to the skies. For aeroplane reading, "The Wright Brothers" is hard to beat. ■



Here's one they made earlier

The joy of flying

Starry, starry night

Skyfaring: A Journey with a Pilot. By Mark Vanhoenacker. *Chatto & Windus; £16.99. To be published in America by Knopf in June*

HOW much does Mark Vanhoenacker love flying? Consider this, poor reader, when next you are wedged into a middle seat between squalling child and armrest hog, or ruing a battery just gone dead in the fourth hour of a thrice-extended delay. When Mr Vanhoenacker was a young man, after university and postgraduate study, he became a management consultant because he judged it the profession that would let him spend most time on aeroplanes. But even that proved insufficient, and after a few years he began training to become a pilot. Today he flies a Boeing 747 for British Airways.

One might think that a commercial pilot would grow inured to the essential strangeness of air travel: how people can step into a metal box outside their flats, descend below street level and enter another metal box, this one on wheels, that takes them to an airport, where they board yet another metal box that will deliver them halfway round the world in the time it takes to eat dinner, nap and watch two films. Many of Mr Vanhoenacker's former colleagues in management consulting probably fly from Boston to Tokyo or London more often than they drive from Boston to, say, New Haven, which is just two hours away on a well-travelled motorway. When Americans living in Singapore fly home for Christmas, they travel more miles in one round trip than generations of their ancestors did in their entire lives. Do this often enough and you stop even noticing how unprecedented in human history it is that you are doing it at all.

Mr Vanhoenacker, fortunately for his readers, has lost none of his sense of wonder at the miracle of flight itself—those "hours in the high country, when lightness is lent to us". It suffuses "Skyfaring", which ▸▸

is less a memoir than an enthusiast's meditation on the life of a pilot. Fittingly for a meditation, very little happens in the book. Instead, it is a beautifully observed collection of details, scenes, emotions and facts from the world above the world that pilots inhabit.

That world revolves around "place lag", the author's nifty term for "the inability of our deep old sense of place to keep up with our aeroplanes". This malady affects pilots more acutely than standard jet lag, because they rarely stay in one place long enough to switch from their home time. Mr Vanhoenacker warmly portrays that floating rootlessness—how a community forms over dinners in Beijing, hikes in Cape Town and breakfasts in Los Angeles. After returning home from South Africa he stands over his sink, rinsing dust from his trainers and reminding himself that, "This is the red of the soil under the South African tree, from the morning I saw the weavers and their nests." He must remind himself not only that he was just there, but also which of his many brief "theres" this particular dust comes from.

At times the book's lack of narrative propulsion palls a little. Beautifully observed as they are, pages upon pages about clouds, fog and the vast emptiness of the night sky can seem repetitive. What rescues it is Mr Vanhoenacker's attunement to wisps of sensual, rooted specificity, such as the scents above different cities that waft into the cockpit—the "unique and rich, faintly smoky" smell of Indian cities, the "snow-air mixes with salt" of Boston or how flying over a river near his friend's home in New England reminds him of "the table they laid for me, and the grateful pilot who came to their place...and felt no sort of lag, until it was time to fly away." ■

Early treasure-hunting in China

To have and to hold

The China Collectors: America's Century-Long Hunt for Asian Art Treasures. By Karl Meyer and Shareen Blair Brysac. *Palgrave Macmillan; 420 pages; $30*

IN THE 1920s a well-connected, smooth-talking buccaneer from the east coast of America rode a caravan of horses across western China. He was dressed in his trademark desert boots and a stetson hat, and he flew the Stars and Stripes. Beneath the rough demeanour lurked an expert. Langdon Warner was schooled in art and archaeology, and he had worked at the Boston Museum of Fine Arts. His expedition was financed by Warburgs, Rockefellers and Forbeses, and he was charged

with bringing home precious antiquities for both personal and public collections.

Warner used crude methods to get his loot. At the famed Dunhuang caves, the repository of vast numbers of Buddhist paintings and sculptures, he slapped cloths soaked in barrels of thick glue in overlapping layers on the walls of frescoes. When they were dry, he peeled them off, removing fragments of wall painting from six caves, but ruining many. He pried loose a three-and-a-half-foot Tang-dynasty *bodhisattva*, wrapped it in his underwear, and then headed back to Beijing, jolting over unmade roads for 18 weeks.

Warner is just one of a cavalcade of American antiquity-hunter-gatherers that appear in "The China Collectors", a well-researched account of the audacious ways the American newly rich plucked paintings, sculptures, friezes, scrolls and manuscripts out of the chaos of pre-Mao China. Diplomats and their wives, traders and scholars all took what they could. The loot was transported in railway wagons to Chinese ports for shipping. The Americans paid, of course, but often meagre amounts.

One member of Beijing's expat colony was George Kates, who, like Warner, was a Harvard graduate of considerable charm who revelled in what the authors call an "American addiction to Chinese art and culture". He cast a discerning eye over the scene. At the same time he deplored the poor taste of many of the buyers, who chose "dull and expensive porcelains" and "garish Mandarin robes which they condemned to the oddest uses".

Kates was no slouch at acquiring, just more discreet. During a stint in Chongqing, where he worked for the Office of Strategic Services, the forerunner of the CIA, he scooped up documents for his American spymasters and cultural pieces for the Library of Congress. The Brooklyn Museum, where he was curator from 1947 to 1949, exhibited his personal collection of Ming furniture. When China fell out of fashion during the anti-communist hysteria of the 1950s, Kates fell on hard times and was forced to sell his precious Ming chairs and tables at an auction attended by a Rockefeller and European royalty.

"The China Collectors" is a racy, panoramic read; a cultural adventure story with serious diplomatic implications. Should the American museums that have preserved these acquisitions from possible destruction during the years of civil strife in China be allowed to keep their collections intact? If China wants them back, what should be the terms?

So far, the Chinese government has allowed the marketplace to take care of the problem, encouraging wealthy Chinese to buy back the country's patrimony at auction and privately from dealers and collectors. But what would happen if demagogic nationalists in China, an ever-louder force, took an interest? Before deciding on any future path, the authors argue, it is important to be clear about "how and why we have collected China". As a first step, theirs is an astonishing tale. ■

Bela Bartok

A sonata in two movements

Bela Bartok. By David Cooper. *Yale University Press; 436 pages; £25. To be published in America by Yale in June*

ALONG with Franz Liszt, Bela Bartok, who died in 1945, is regarded as one of Hungary's greatest composers. Many consider his six string quartets, completed between 1908 and 1939, to be second only to Beethoven's. Though not as atonal as the work of many of his contemporaries, such as Arnold Schoenberg and Alban Berg, Bartok's compositions can be heavy-going, combining influences from Hungarian folk, jazz and Arabic music. In this weighty tome, David Cooper of Leeds University digs into Bartok's life, interlacing his discussion of the compositions with wider discussions of politics and culture.

Just as Bartok's music is not for the faint of heart, neither is this book. The level of research is astonishing, at times to the point of scholasticism. And a big chunk of it is filled with detailed analyses of Bartok's compositions, along with dozens of musical illustrations. Musical jargon peppers the discussion: for readers who do not know their *arpeggios* from their *appoggiaturas*, parts of the book will be difficult to understand.

But even for musical neophytes, the book has much to offer. Bartok was born in Nagyszentmiklos (now Sannicolau Mare in Romania), a relatively prosperous if unremarkable community. His hometown

was a mix of cultures, including ethnic Romanians and Germans. Hungarians formed only a tenth of the population.

Mr Cooper does a good job of explaining the composer's insatiable appetite for work. Bartok rarely took proper holidays. His musical output alone would be deemed sufficient by many successful composers. Yet on top of this he was also a teacher (though only for the money) and a concert pianist of some repute.

His real passion, however, was for folk music, which also had a big influence on his compositions. Bartok would spend weeks at a time travelling the world, dropping in on peasants and asking them to sing for him, at the time a European craze. He would then record and transcribe what he heard. Sometimes these jaunts proved difficult. In Algeria, for instance, which he visited in 1913, many of the women felt that on religious grounds it would be inappropriate for them to sing for him. (That was not the only time, Mr Cooper reveals elsewhere, that women turned him down.)

Happily, in Hungary he had more success. He visited a little village, where an elderly railway guard sang seven ballads for him. "I was notating for two-and-a-half hours," a thrilled Bartok recalled in a letter. "I could hardly keep up." By the 1930s a project at the Hungarian Academy of Sciences, in which Bartok was involved, had collected 10,000 Hungarian melodies. Volumes devoted to his ethnomusicology are still being published.

Mr Cooper's description of Bartok's folk-music collecting is fascinating, but other parts of the book fall a little short. After Hungary became a Soviet republic in 1919, Bartok was chosen to be part of the country's "Musical Directorate", with special responsibility for organising concerts. How did such a radical and demanding composer cope with the task of providing music that had to be accessible to a mass proletarian audience? The issue is not really explored. The book also sometimes gets bogged down in issues of questionable historical interest, such as whether or not Bartok may have had Asperger's syndrome.

The second world war threw European musical life into turmoil. Many of Bartok's contemporaries, such as Schoenberg and Igor Stravinsky, had their works paraded by the Nazis in the "Degenerate Music" exhibition, held in Düsseldorf in mid-1938. (To his irritation Bartok was spared, possibly because of Hungary's pro-Nazi government.) Nonetheless, by 1940 he had decamped to New York, where he was deluged by offers from universities for lectures and visiting professorships. He lived to a surprisingly ripe age, given the health problems that had plagued him since birth. As he lay dying he rued the many projects that he was going to leave uncompleted. It was a very Bartokian ending. ■

Manhattan's new Whitney

Don't be aloof

NEW YORK

The museum of American art should have been gutsier

FOR Renzo Piano, an Italian architect whose speciality is geometrically immaculate refinement, the $422m new Whitney Museum, which opens on May 1st, is a startling, aggressive departure. Mr Piano has hoisted seven massive floors above a full-length lobby walled in glass. The fifth floor broadens into a hammerhead aimed at the High Line park to the east. Projecting out like artillery from the three top levels are a series of metal stairs.

In New York's Meatpacking district, this block-long collision of forms in concrete, painted steel and glass wedges itself into the jumble of neighbouring buildings like a teenage boy—all hips and elbows. Yet Mr Piano also cleaves to his characteristic elegance; the walls shape late-afternoon river reflections that seep up Gansevoort Street, setting the sleek glass lobby aglow.

Gertrude Vanderbilt Whitney founded her museum of American art in 1930 around a coterie of genteel social-realists dubbed the Ashcan school. The Whitney quickly took on the heterogenous characteristics of America itself, particularly its urban side. Prior to this latest incarnation, Mr Piano and two architectural predecessors (the late Michael Graves and Rem Koolhaas) proposed designs expanding the forbidding Upper East Side home that Marcel Breuer had designed for it in 1966. All were vetoed by the Whitney's proprietary, well-heeled neighbours. For the museum, decamping to the Meatpacking district has resulted in a much larger site.

Too courtly

Inside, it often works well. The building offers the museum a 50% increase in exhibition space. In space-strangled Manhattan, the value of such generosity is hard to overstate. Lifts open directly onto art-display space, as they did in the former Whitney, so you immediately encounter work ranging from Alexander Calder's "Calder's Circus" (introducing the theme of spectacle and mass entertainment) to "He Kills Me", a diptych by Donald Moffett, an AIDS activist, showing a pulsing orange target alongside a photo of Ronald Reagan.

On each floor, the length of the gallery gently entices the visitor to wander from one end to another. Loosely partitioned, the displays flow into each other, which can urge movement rather than contemplation. Occasional long vistas, where daylight at either end beckons, set up a conversation among numerous works at once. Throughout, the conventional line-up of individual objects is interrupted by tight groupings of items that offer context, often with explicit political or social agendas, from labour rights to civil rights.

Mr Piano is famous for his ethereal galleries that are lit from above and his expanses of glass, but daylight and views make only tentative forays here. A saw-tooth roof draws enlivening north light into the smallish top floor. Shades will obscure extraordinary river and city views much of the time to keep out the searing morning and afternoon light. Those shades will also limit intended glances by passers-by into the full-height windows on the fifth floor, where Glenn Ligon's neon "Negro Sunshine" faces the city, and Jonathan Borofsky's "Running People at 2,616,216" looks out on Hudson River Park.

Sculpture terraces tumble down towards the High Line, linked by military-grey stairways. Knobby stainless-steel sculptures by Tony Smith and angular geometric metal forms by Robert Morris contrast with the jumbled city beyond. From surrounding streets, the visible movement of visitors brings the building alive.

When the area swarmed with meatpackers, trains delivered squealing pigs on the elevated track that has been converted to the High Line. For years prostitutes plied the surrounding streets, sharing them with drug dealers and drag queens. It's the kind of milieu that was often recorded, if not inhabited, by the artists the Whitney collects. But only briefly, for example in the terraces, does Mr Piano connect visitors to the rich stories the cityscape has to tell. The untidiness of the architect's composition wants to engage the surroundings, but there is no frisson here. Mr Piano is courtly when he needs to be gutsy, even operatic. His bespoke details—like the lushly rounded steel panels—play to the district's luxe homogenisation. The new Whitney should inhabit the city, not sit aloof from it. ■

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Please go to **www.crisisaction.org/opportunities** for an application pack. Deadline for applications is: 00:01 GMT Monday 11th May 2015.

Director of Marketing and Communication

Applications are invited for the post of Director of Marketing and Communication, UCD College of Business.

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Salary Scale: €96,064 - €122,848 per annum.

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Vacancy Ref: 007324 - Prior to application, further information (including application procedure) should be obtained from the UCD Job Vacancies website (under the category of Senior Appointments): See **http://www.ucd.ie/hr/jobvacancies** for details.

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REQUEST FOR PROPOSAL

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OMAN POWER AND WATER PROCUREMENT CO. (SAOC)
إحدى شركات مجموعة نماء
Member of Nama Group

REQUEST FOR PROPOSAL (RFP) for Consultancy Services to Develop the Electricity Market Rules for the Oman Electricity Market

The Oman Power and Water Procurement Company SAOC ("the OPWP") is responsible for procuring power and water capacity and output in the Sultanate of Oman in accordance with the requirements of the law for the regulation and privatisation of the electricity and related water sector promulgated by Royal Decree 78/2004 as amended ("the Sector Law").

OPWP is seeking suitably experienced consultants to draft detailed market rules to support a spot market pricing system for the electricity sector in Oman. Working from an existing high-level design, the consultant should develop detailed market rules consistent with international best practice and the specific requirements of Oman.

A Request for Proposal ("RFP") for the consultancy services will be available for purchase from the offices of OPWP effective from 26th April 2015 to 11th May 2015 between the hours of 08.30 to 15.00 from Sunday to Thursday. The OPWP offices are located on Floor 5, Building 5, Muscat Grand Mall, Tilal Office Complex, Al Khuwair Al Janubiyyah, Muscat. The tender details are provided below;

Tender Title	Tender No.	Tender Purchase Price	Statement of Proposal Submission Deadline
Request for Proposal (RFP) for Consultancy Services to Develop the Electricity Market Rules for the Oman Electricity Market	11/2015	RO 175	08 June 2015 Before 11.00 hrs (Gulf Standard Time).

Payment should be processed by bank transfer and evidence of the bank transfer is to be submitted at the time of collection of the RFP documents. Bidders who have paid the Tender Purchase Price may submit by email evidence of payment and request delivery of the RFP by email.

Bank account details:
Account Name: Oman Power & Water Procurement Company SAOC
Beneficiary Bank: Bank Muscat
Branch: Corporate Branch
Account number: 0423011072740015
Swift code: BMUSOMRXXXX

P.O. Box:1388, Postal Code: 112, Floor 5, Building 5, Muscat Grand Mall, Tilal Complex (Office), Al Khuwair Al Janubiyyah, Muscat
Switchboard: +968 24508400 Fax: +968 24399946 Website: www.omanpwp.com

European Parliament

EUROPEAN PARLIAMENT (EP) – Open call for tender for the provision of external expertise in the field of banking supervision and resolution ("Expert Panel on Banking Union")

The EP's Committee on Economic and Monetary Affairs (ECON) and especially the Banking Union Working Group (BUWG) established by ECON seeks independent expert advice in the field of banking supervision and resolution. The chosen experts will be asked to regularly contribute to the preparations of the hearings in the framework of the Single Supervisory Mechanism and the Single Resolution Mechanism as well as for any other purpose arising from the on-going works of the BUWG.

The expertise will be requested in the form of the written papers and related services as appropriate. The official call for tender notice can be found in the **Official Journal of the EU**. The tender documents can be downloaded at http://www.europarl.europa.eu/tenders/invitations.htm.

The closing date for the submission of tenders is 21 May 2015.

AYENSU STARCH COMPANY LIMITED ("ASCo")

EXTENSION OF DEADLINE FOR THE SUBMISSION OF BIDS FOR THE SHARES OF THE COMPANY

In response to appeals by prospective bidders for the acquisition of shares of ASCo, the Ministry of Trade and Industry ("MoTI") wishes to extend the deadline for the submission of sealed bids for 70% of the shares of the Company to 12 noon on Friday, 8 May 2015.

Ayensu Starch Company Limited ("ASCo"), located at Bawjiase in the Central Region of Ghana, was established in September 2001 as an agro-processing business involved in the processing of cassava roots into food grade starch for local consumption and export. The mission of ASCo is to become a leading producer of high quality food grade cassava starch for the local and export markets.

MoTI, acting on behalf of the shareholders of the Company has appointed PwC to assist with the revitalisation of ASCo as part of efforts to enhance its status as a leading cassava processing company in West Africa.

On behalf of its shareholders, MoTI is inviting prospective bidders to acquire 70% of the shares of ASCo. Interested parties are invited to submit sealed bids to acquire 70% shares of ASCo. The deadline for the submission of the sealed bids is Friday, 8 May, 2015, at 12 noon.

Sealed bids should be marked CONFIDENTIAL – PROJECT YUCA and addressed to;

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ATTENTION: ERIC NIPAH

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pwc

Economic data

% change on year ago

	Gross domestic product			Industrial production	Consumer prices		Unemployment	Current-account balance		Budget balance	Interest rates, %	Currency units, per $	
	latest	qtr*	2015†	latest	latest	2015†	rate, %	latest 12 months, $bn	% of GDP 2015†	% of GDP 2015†	10-year gov't bonds, latest	Apr 22nd	year ago
United States	+2.4 Q4	+2.2	+3.0	+2.0 Mar	-0.1 Mar	+0.3	5.5 Mar	-410.6 Q4	-2.2	-2.5	1.90	-	-
China	+7.0 Q1	+5.3	+6.9	+5.6 Mar	+1.4 Mar	+1.4	4.1 Q4§	+219.7 Q4	+2.7	-2.8	3.30§§	6.19	6.24
Japan	-0.8 Q4	+1.5	+1.0	-2.0 Feb	+2.2 Feb	+0.7	3.5 Feb	+46.6 Feb	+2.3	-6.9	0.31	120	103
Britain	+3.0 Q4	+2.5	+2.6	+0.1 Feb	nil Mar	+0.3	5.6 Jan††	-161.3 Q4	-4.5	-4.4	1.70	0.67	0.59
Canada	+2.6 Q4	+2.4	+2.0	+4.1 Jan	+1.2 Mar	+1.0	6.8 Mar	-39.3 Q4	-2.9	-1.8	1.50	1.22	1.10
Euro area	+0.9 Q4	+1.3	+1.4	+1.6 Feb	-0.1 Mar	+0.1	11.3 Feb	+298.6 Feb	+2.7	-2.2	0.17	0.93	0.72
Austria	-0.2 Q4	+0.4	+1.0	-0.1 Jan	+1.0 Mar	+0.9	5.3 Feb	+3.2 Q4	+1.5	-2.1	0.23	0.93	0.72
Belgium	+1.0 Q4	+0.7	+1.3	+0.9 Jan	-0.4 Mar	+0.2	8.5 Feb	+7.4 Dec	+0.5	-2.6	0.35	0.93	0.72
France	+0.2 Q4	+0.5	+1.1	+0.6 Feb	-0.1 Mar	+0.1	10.6 Feb	-18.3 Feb‡	-0.9	-4.2	0.38	0.93	0.72
Germany	+1.5 Q4	+2.8	+1.8	-0.3 Feb	+0.3 Mar	+0.3	6.4 Mar	+290.1 Feb	+7.6	+0.7	0.17	0.93	0.72
Greece	+1.2 Q4	-1.5	+1.4	+1.9 Feb	-2.1 Mar	-0.9	25.7 Jan	+1.6 Feb	+2.7	-3.5	12.70	0.93	0.72
Italy	-0.5 Q4	-0.1	+0.5	-0.2 Feb	-0.1 Mar	+0.1	12.7 Feb	+45.9 Feb	+1.9	-2.9	1.40	0.93	0.72
Netherlands	+1.4 Q4	+3.2	+1.5	-0.2 Feb	+0.4 Mar	+0.2	8.9 Mar	+90.2 Q4	+9.2	-2.0	0.25	0.93	0.72
Spain	+2.0 Q4	+2.7	+2.4	+1.1 Feb	-0.7 Mar	-0.6	23.2 Feb	+11.3 Jan	+0.4	-4.5	1.47	0.93	0.72
Czech Republic	+1.2 Q4	+1.5	+2.9	+4.6 Feb	+0.2 Mar	+0.2	7.2 Mar§	+1.4 Q4	-0.5	-1.7	0.44	25.6	19.9
Denmark	+1.5 Q4	+2.1	+1.6	-2.3 Feb	+0.6 Mar	+0.7	4.9 Feb	+22.0 Feb	+5.6	-3.0	0.32	6.96	5.41
Norway	+3.2 Q4	+3.7	+0.9	+2.2 Feb	+2.0 Mar	+1.4	3.9 Jan††	+42.5 Q4	+11.5	+7.0	1.43	7.90	5.99
Poland	+3.1 Q4	+2.8	+3.3	+8.7 Mar	-1.5 Mar	+0.2	11.7 Mar§	-5.3 Feb	-1.7	-1.5	2.49	3.72	3.04
Russia	+0.4 Q4	na	-4.1	-0.5 Mar	+16.9 Mar	+15.2	5.9 Mar§	+57.1 Q1	+3.7	-2.6	10.94	52.1	35.7
Sweden	+2.6 Q4	+4.6	+2.6	-3.9 Feb	+0.2 Mar	+0.2	8.0 Mar§	+35.7 Q4	+5.9	-1.3	0.31	8.73	6.59
Switzerland	+1.9 Q4	+2.4	+0.9	+2.7 Q4	-0.9 Mar	-0.9	3.2 Mar	+49.1 Q4	+7.8	+0.3	-0.17	0.97	0.89
Turkey	+2.6 Q4	na	+3.4	+1.0 Feb	+7.6 Mar	+6.6	11.3 Jan§	-42.8 Feb	-4.5	-1.7	9.07	2.71	2.14
Australia	+2.5 Q4	+2.2	+2.5	+3.3 Q4	+1.3 Q1	+1.7	6.1 Mar	-40.1 Q4	-3.0	-2.3	2.44	1.29	1.07
Hong Kong	+2.2 Q4	+1.5	+2.4	-3.6 Q4	+4.6 Mar	+3.3	3.3 Feb‡‡	+5.6 Q4	+2.3	-0.2	1.44	7.75	7.75
India	+7.5 Q4	+4.0	+7.5	+5.0 Feb	+5.2 Mar	+5.2	8.6 2014	-27.4 Q4	-0.9	-4.1	7.75	63.0	60.9
Indonesia	+5.0 Q4	na	+5.2	+2.3 Feb	+6.4 Mar	+5.9	5.9 Q3§	-26.2 Q4	-3.1	-1.9	7.54	12,926	11,550
Malaysia	+5.8 Q4	na	+5.5	+5.1 Feb	+0.9 Mar	+2.9	3.1 Jan§	+15.2 Q4	+3.4	-4.4	3.86	3.61	3.27
Pakistan	+5.4 2014**	na	+5.7	+0.9 Feb	+2.5 Mar	+4.6	6.2 2013	-1.9 Q1	-0.6	-5.1	9.20†††	102	97.5
Philippines	+6.9 Q4	+10.4	+6.7	+4.4 Feb	+2.4 Mar	+3.0	6.6 Q1§	+12.7 Dec	+3.8	-2.0	4.10	44.2	44.5
Singapore	+2.1 Q1	+1.1	+3.1	-3.6 Feb	-0.3 Feb	+0.4	1.9 Q4	+58.8 Q4	+22.2	-0.7	2.15	1.35	1.26
South Korea	+2.4 Q1	+3.1	+3.2	-4.7 Feb	+0.4 Mar	+1.1	4.0 Mar§	+94.4 Feb	+7.7	+0.5	2.17	1,084	1,039
Taiwan	+3.3 Q4	+4.8	+3.9	+2.7 Feb	-0.6 Mar	+0.7	3.8 Mar	+65.3 Q4	+12.6	-1.2	1.55	31.1	30.3
Thailand	+2.2 Q4	+7.1	+3.9	+3.6 Feb	-0.6 Mar	+1.3	0.8 Feb§	+14.2 Q4	+2.2	-1.9	2.50	32.4	32.3
Argentina	+0.4 Q4	+0.1	-0.8	-2.1 Feb	— ***	—	6.9 Q4§	-5.1 Q4	-1.4	-3.1	na	8.87	8.00
Brazil	-0.2 Q4	+1.3	-0.9	-9.1 Feb	+8.1 Mar	+7.6	5.9 Feb§	-101.6 Mar	-3.9	-5.3	12.60	3.01	2.24
Chile	+1.8 Q4	+3.8	+3.0	-0.5 Feb	+4.2 Mar	+3.6	6.1 Feb§‡‡	-3.0 Q4	-1.5	-2.0	4.51	619	562
Colombia	+3.5 Q4	+2.9	+3.7	-1.3 Feb	+4.6 Mar	+4.1	9.9 Feb§	-19.8 Q4	-6.1	-2.1	6.77	2,491	1,934
Mexico	+2.6 Q4	+2.7	+2.9	+1.6 Feb	+3.1 Mar	+3.1	4.5 Feb	-26.5 Q4	-2.3	-3.4	5.73	15.4	13.1
Venezuela	-2.3 Q3	+10.0	-3.4	+0.8 Sep	+68.5 Dec	+65.9	7.9 Jan§	+10.3 Q3	-1.8	-15.9	11.03	6.30	6.35
Egypt	+4.3 Q4	na	+4.0	+4.9 Feb	+11.5 Mar	+9.7	12.9 Q4§	-5.8 Q4	-1.3	-10.7	na	7.63	6.99
Israel	+3.4 Q4	+7.0	+3.5	+0.6 Jan	-1.0 Mar	-0.2	5.3 Feb	+9.0 Q4	+4.8	-3.0	1.38	3.94	3.48
Saudi Arabia	+3.6 2014	na	+2.5	na	+2.0 Mar	+2.7	6.0 2014	+120.1 Q3	-1.7	-10.4	na	3.75	3.75
South Africa	+1.3 Q4	+4.1	+2.1	-0.4 Feb	+4.0 Mar	+4.5	24.3 Q4§	-19.1 Q4	-5.0	-3.7	8.03	12.2	10.5

Source: Haver Analytics. *% change on previous quarter, annual rate. †*The Economist* poll or Economist Intelligence Unit estimate/forecast. §Not seasonally adjusted. ‡New series. **Year ending June. ††Latest 3 months. ‡‡3-month moving average. §§5-year yield. ***Official number not yet proven to be reliable; The State Street PriceStats Inflation Index, Feb 30.0%; year ago 32.22% †††Dollar-denominated bonds.

Markets

	Index Apr 22nd	% change on one week	Dec 31st 2014 in local currency	Dec 31st 2014 in $ terms
United States (DJIA)	18,038.3	-0.4	+1.2	+1.2
China (SSEA)	4,608.7	+7.7	+36.0	+36.2
Japan (Nikkei 225)	20,133.9	+1.3	+15.4	+15.4
Britain (FTSE 100)	7,028.2	-1.0	+7.0	+3.2
Canada (S&P TSX)	15,304.8	-0.9	+4.6	-1.1
Euro area (FTSE Euro 100)	1,233.2	-2.1	+18.9	+5.4
Euro area (EURO STOXX 50)	3,724.5	-2.1	+18.4	+4.9
Austria (ATX)	2,617.3	-1.3	+21.2	+7.4
Belgium (Bel 20)	3,794.3	-2.6	+15.5	+2.4
France (CAC 40)	5,211.1	-0.8	+22.0	+8.1
Germany (DAX)*	11,867.4	-3.0	+21.0	+7.3
Greece (Athex Comp)	719.4	-3.3	-12.9	-22.8
Italy (FTSE/MIB)	23,315.4	-3.0	+22.6	+8.7
Netherlands (AEX)	505.7	-0.3	+19.1	+5.6
Spain (Madrid SE)	1,156.4	-3.2	+10.9	-1.7
Czech Republic (PX)	1,042.7	-0.8	+10.1	-1.4
Denmark (OMXCB)	889.8	+0.2	+31.8	+16.5
Hungary (BUX)	21,955.3	-0.6	+32.0	+22.5
Norway (OSEAX)	696.5	-2.1	+12.4	+6.7
Poland (WIG)	56,450.9	+1.4	+9.8	+4.7
Russia (RTS, $ terms)	1,004.0	-4.6	+11.9	+27.0
Sweden (OMXS30)	1,706.3	-0.3	+16.5	+4.5
Switzerland (SMI)	9,358.1	-0.7	+4.2	+7.2
Turkey (BIST)	83,780.3	+3.0	-2.3	-15.9
Australia (All Ord.)	5,812.8	-1.1	+7.9	+2.4
Hong Kong (Hang Seng)	27,933.9	+1.1	+18.3	+18.4
India (BSE)	27,890.1	-3.2	+1.4	+1.8
Indonesia (JSX)	5,437.1	+0.4	+4.0	-0.1
Malaysia (KLSE)	1,854.8	+0.8	+5.3	+1.9
Pakistan (KSE)	33,490.7	+3.9	+4.2	+3.2
Singapore (STI)	3,496.2	-1.2	+3.9	+2.3
South Korea (KOSPI)	2,143.9	+1.1	+11.9	+13.9
Taiwan (TWI)	9,613.0	+0.8	+3.3	+5.2
Thailand (SET)	1,552.0	+0.3	+3.6	+5.4
Argentina (MERV)	11,687.6	-3.6	+36.2	+29.9
Brazil (BVSP)	54,617.4	-0.5	+9.2	-3.5
Chile (IGPA)	19,573.8	nil	+3.7	+1.7
Colombia (IGBC)	10,359.1	-0.8	-11.0	-14.9
Mexico (IPC)	45,232.0	-0.1	+4.8	nil
Venezuela (IBC)	5,689.4	+4.0	+47.4	na
Egypt (Case 30)	8,629.5	-3.0	-3.3	-9.4
Israel (TA-100)	1,471.3	-0.6	+14.1	+12.8
Saudi Arabia (Tadawul)	9,572.3	+3.5	+14.9	+14.9
South Africa (JSE AS)	54,281.6	+1.0	+9.1	+3.2

Exchange rates against the dollar

Thanks to a growing American economy and quantitative easing by the European Central Bank and the Bank of Japan, the dollar has been on a tear. Investors have rushed to buy American assets, in the hope of getting higher interest rates. Against the dollar, the euro has lost nearly 30% of its value over the past year; the Australian dollar, nearly 20%. The Russian rouble has been suffering for different reasons: it has dropped by a third against the dollar amid falling oil prices and international sanctions. The Chinese yuan is the only major currency to have risen against the greenback over the past year, but its appreciation has slowed as China's central bank has shown a willingness to let the yuan weaken.

Source: Thomson Reuters

Other markets

	Index Apr 22nd	% change on one week	Dec 31st 2014 in local currency	Dec 31st 2014 in $ terms
United States (S&P 500)	2,108.0	+0.1	+2.4	+2.4
United States (NAScomp)	5,035.2	+0.5	+6.3	+6.3
China (SSEB, $ terms)	399.1	+2.2	+37.1	+37.3
Japan (Topix)	1,621.8	+2.1	+15.2	+15.3
Europe (FTSEurofirst 300)	1,628.4	-1.3	+19.0	+5.5
World, dev'd (MSCI)	1,786.8	+0.2	+4.5	+4.5
Emerging markets (MSCI)	1,047.6	+1.0	+9.5	+9.5
World, all (MSCI)	438.1	+0.3	+5.0	+5.0
World bonds (Citigroup)	880.0	nil	-2.5	-2.5
EMBI+ (JPMorgan)	718.2	+0.1	+3.8	+3.8
Hedge funds (HFRX)	1,253.6§	-0.2	+2.9	+2.9
Volatility, US (VIX)	12.7	+12.8	+19.2	(levels)
CDSs, Eur (iTRAXX)†	60.1	+10.2	-13.5	-23.3
CDSs, N Am (CDX)†	61.6	+1.5	-8.3	-8.3
Carbon trading (EU ETS) €	7.1	+3.5	-2.2	-13.3

Sources: Markit; Thomson Reuters. *Total return index. †Credit-default-swap spreads, basis points. §Apr 21st.

Indicators for more countries and additional series, go to: **Economist.com/indicators**

The Economist commodity-price index

2005=100

	Apr 14th	Apr 21st*	% change on one month	% change on one year
Dollar Index				
All Items	140.9	141.9	-1.6	-18.9
Food	157.1	157.9	-1.7	-22.7
Industrials				
All	124.1	125.3	-1.5	-13.3
Nfa†	118.5	117.9	-2.5	-21.0
Metals	126.4	128.5	-1.1	-9.8
Sterling Index				
All items	173.3	172.9	-2.0	-8.6
Euro Index				
All items	163.8	164.3	-0.1	+4.2
Gold				
$ per oz	1,197.4	1,199.1	+0.7	-6.6
West Texas Intermediate				
$ per barrel	53.2	55.7	+18.7	-45.1

Sources: Bloomberg; CME Group; Cotlook; Darmenn & Curl; FT; ICCO; ICO; ISO; Live Rice Index; LME; NZ Wool Services; Thompson Lloyd & Ewart; Thomson Reuters; Urner Barry; WSJ. *Provisional †Non-food agriculturals.

The voice of cricket

Richard (Richie) Benaud, cricketer and commentator, died on April 10th, aged 84

SURPRISINGLY, there is a French Cricket Association. More surprisingly, its patron until his death was Richie Benaud, captain of Australia's cricket team from 1958 to 1964 and, for four decades afterwards, the dry, clipped, unflappable voice of cricket on both British and Australian television. Mr Benaud loved the fact that his forebears, back way beyond Parramatta and Jugiong in New South Wales, lent their name to a tiny village somewhere near Clermont-Ferrand. And that French connection explained his liking for Chassagne Montrachet 1981 as well as beer from a green bottle; his bolthole on the Côte d'Azur; and even, perhaps, the dapperness of the cream jackets that marked him out.

Cricket aficionados found much to treasure in him, not least his leg-spin bowling—when, after a short, light run-up, he would uncoil his long body, fling his right arm high and flick his wrist so that the ball, set spinning and drifting towards a right-hand batsman, would fizz left and, with luck, demolish the wicket. He took 248 wickets in Test cricket, batted tenaciously (making more than 2,000 runs), and was a celebrated close fielder, taking 65 Test catches. As captain of Australia he revitalised a game which by the 1950s was looking tired even in that sports-mad country: going out to win, especially against then-dominant England. On his watch Australia never lost a Test series, retrieved the Ashes from England and defended them twice more. He was shrewd, subtle in his field-placings, charismatic, and rejoiced mightily with his team-mates when opposition wickets fell.

It was his modesty, though, that made him unusual in any sport. When he was appointed captain of Australia, he thought others deserved it more. When he was credited with the "catch of the century" to dismiss Colin Cowdrey at Lord's in 1956, he insisted he hadn't even seen the ball. Out for 90 in one Test innings, he mildly said he had never railed for a moment at missing the century. He stressed that Shane Warne, Australia's best leg-spinner of recent years, was much better than he had ever been, and that as batsman and captain no one would ever beat Don Bradman, the hero of his cricket-crazed childhood.

A leg-spinner in the living room

Quiet as he was, he weighed in at times with all the more authority. His support for Kerry Packer's World Series Cricket, a breakaway league with limited-over matches, did much to get it off the ground in 1977. Traditionalists hated it, but he backed it because, for once, players might be properly rewarded. He had spent years feeling resentful of the Australian Cricket Board, with its nonsensical rules for training and its meagre pay for tours. This was his opportunity, without crowing about it, to take the snooty officials down a peg. Besides, a series that might pull in huge audiences had to be good for the game.

Modesty also filtered into his TV commentating. He saw himself as a guest in viewers' living rooms, and behaved accordingly. In his broadcasts, the camera did the talking. The fact that he knew, from experience, where a ball was going and for how many runs almost before it was struck, did not make him garrulous. Instead, he was a master of silences that built up the tension of a game. That polite serenity gave his criticisms all the more force. He stopped broadcasting in Britain, when the British TV rights went to Sky in 2005, because he thought the joy of watching cricket should be free for everyone. "Thank you for having me," was his last remark.

He was well aware of cricket's violent side. His skull had been fractured, his mouth smashed and his spinning finger continually ripped open by the seam of the ball, until he learned to mend it with a dressing of calamine lotion and borax. The advice he took from the best leg-spinner before him, Tiger O'Reilly, was never to forget that the batsman was his enemy. From then on he practised continually to land the ball in the bowler's footmarks, giving it added venom on the bounce.

Off the field, however, he had no time for antagonism of any sort. Opposing teams were welcome in the Australian dressing room. (After the first tied Test against the West Indies at Brisbane in 1960, the West Indian players entertained their Australian rivals with calypso.) For the first time the press were welcome, too, for he had been a journalist himself for several years at the *Sydney Sun*, and liked to have a beer and chat with them after the game. As a broadcaster, in either Britain or Australia, his proudest claim was that he never used the words "we" or "they". He was almost prissily bipartisan, though every word, not least his favourite "Marvellous!", murmured west Sydney from the TV set.

Cricket, he often said, was above all a game of good and ill fortune. Pitches were ever-variable, from the dirt paddocks and bouncy concrete of his boyhood to the rain-spongy, quaint grass of England ("Jeezzz, it's not even level!" was his first reaction to the sacred sloping turf of Lord's). Weather and light were unpredictable. Players had on and off days, balls misbehaved, and umpires made weird decisions. It all had to be taken philosophically; for at the back of it lay the long, noble history he relished, beginning on English village greens and unrolling to a multicoloured razzmatazz future, in which deadly rivals would always break for tea together, in the most civilised and enjoyable way. ■

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